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EDITED BY SIGISMUND BLUMANN

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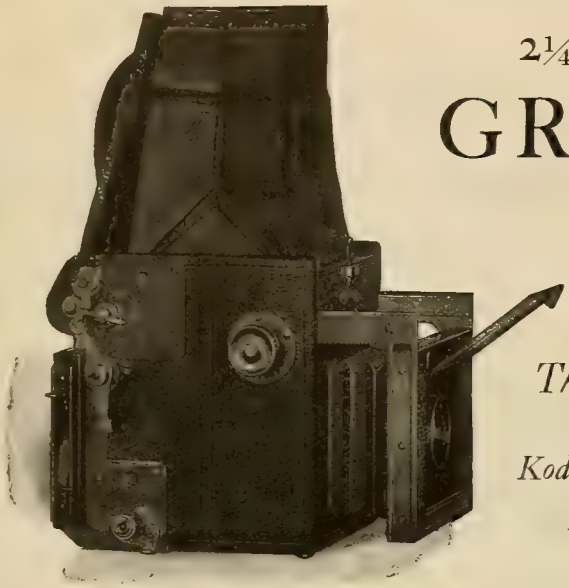

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI JANUARY, 1924 No. 1

"What's Wrong with the Photographic Profession?"

By J. VANDERPANT

New Westminster, B. C., Canada

Some weeks ago upon receiving for the first time in a score of years, a photographic magazine from Holland, the first article on the first page, struck me with regrettable familiarity, "Free enlargements, free bridal groups, free frames, coupons at a bargain. Fellow workers, what's the matter, let us come together, talk things over and see if we cannot find a remedy for so much wrong?"

I had limited myself with the belief that we Westerners experienced about the worst of it; but after taking notice of this outcry from foreign lands, we may well presume that our profession, the world over is at present the victim of wrong concepts, of wrong practice, and wrong results.

The representative of "Camera Craft" at our Victoria Convention, after listening to a short talk which partly touched upon the subject mentioned, asked me if I would write down a few of the thoughts expressed there and I gladly consented to do so, not because it would be possible to solve at a go of the pen a world problem, but because one may have solved this problem to one's own satisfaction and someone else, willing to "listen in" may benefit by it.

Having come in contact with a score of fellow craftsmen, it became apparent that the great majority are without the support of a mental foundation; they are running their studios more or less haphazardly, unprepared to either steadfastly combat threatening circumstances or even to accept with rude gratitude possible success.

I do consider a substantial mental attitude, as a result of scientific thinking, essential to progress in every profession, and it seems as if the Photographer above all others should be ready to accept this axiom, for every formula he uses in his chemical treatment is the result of concen-

trated scientific experimenting and thinking. One does not go in his darkroom with a batch of exposures and then haphazardly make a pyro-elon-soda mixture, but if satisfactory results are to be obtained scientifically decided quantities are to be mixed.

Where every minor preparation, in every business, requires the application of scientific rules, is it then not logical to seek in the first place a principle, which unites all of them? The great law of energy to which all action has to respond in order to reach the goal of success?

One hears much said about system in the studio, in the darkroom, in bookkeeping and advertising, but those are only idle concepts unless these systematic acts are the result of system in our whole thinking, so that we are guided with scientific certainty to do the right thing at the right time and in the right spirit.

In this respect it seems essential to differentiate business principles in those resting on the actions of mere human instinct (which is the negative quality and wrong) and in those rising from the use of man's highest ability: Intelligence (which is the positive quality and right).

The photographer who runs—may be financially successful—his studio, with only the benefit for himself in mind, neglecting the golden rule in his pursuit of financial gain, is actually using the same instinct, which the dog uses to get his bone. It may be more polished in form, it may deceive with a shining surface the general public—and the man himself—it is essentially the same. This very selfish instinct is the basis of all discord upon this plane up to our present day. Was there any other motive behind the actions leading to the world war?

Man following instinct only is deceiving himself, for no matter what his financial gain may be, it can never bring him satisfaction, because he has not learned the real meaning of life intelligently understood and therefore can never enjoy whatever may be the result of instinctive tactics in business. As I heard it expressed: A man with an understanding of higher intelligence will get more real joy out of his backyard, than will the so-called successful instinctive man out of a trip around the world.

On the other hand, accepting the law of life as an expression of good and love and beauty with which one has to remain in harmony in order to experience happiness, is enjoying every minute of life and it will enable one to do the right thing in the right way, in the right spirit and this is intelligence expressed in harmony with Creation.

Here one may object and considering present day history, say that life is far from harmonious in any and all of its actions.

Now let me say, if one is going to learn photography, certainly he is trying to get understanding through the best possible medium. He is not going to the man around the corner with a dirty, dusty showcase in which some faded prints are hanging, "Happy hang lucky," but one will look for the man who is demonstrating knowledge of his business and love for

THE WINDOW'S PATTERN — By J. VANDERPANT
New Westminster, B. C.

Awarded first prize in the Pictorial Class at the Victoria Convention of the Photographers' Association of the Pacific Northwest.

Also exhibited in the Royal Salon, London, 1923 and the San Francisco-Oakland Salon of 1923.

Made with Ansco Camera and enlarged with a Verito lens.

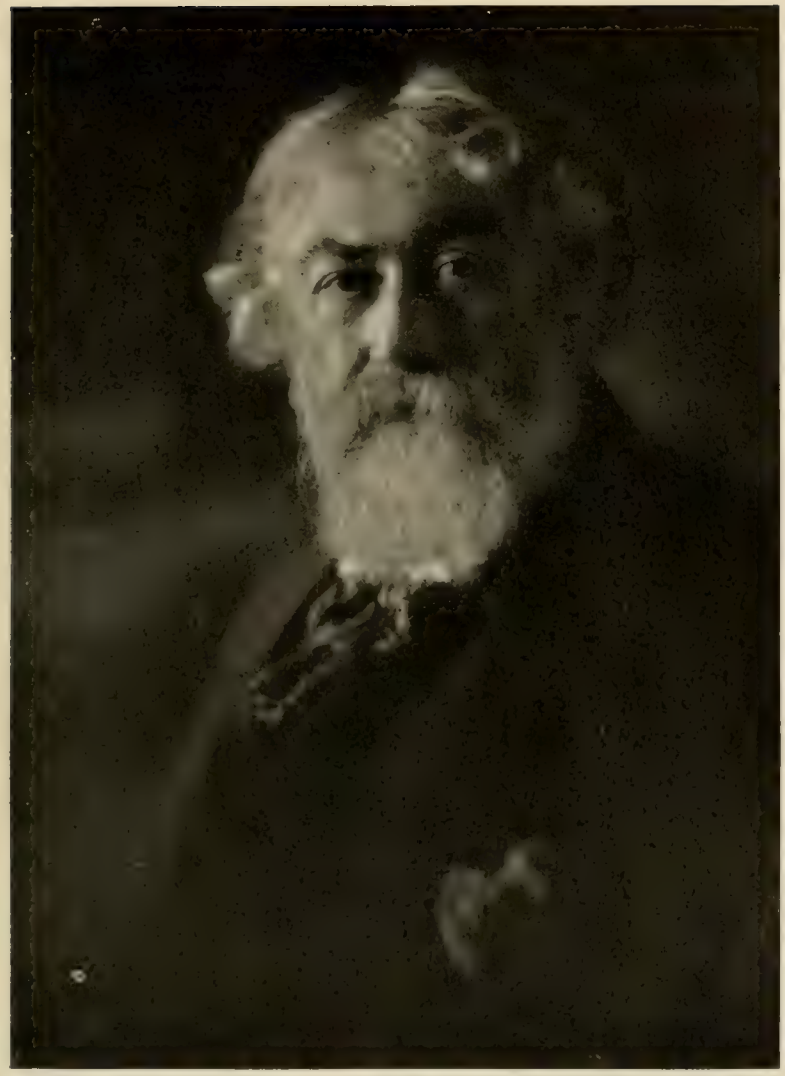
his profession. Very much the same, so with our concepts of life, are we going to learn it from a world, which has proved that its principles are either failures or not practised; from a newspaper filled with a concentration of world misery? Or are we going to realize that all inharmonious conditions are a consequence of wrong thinking, wrong acting, and that if those were corrected by the influence of scientific intelligence, life would appear as it indeed must be: "Harmony."

The rule of human instinct, contrary to the law of good and love, has made this world what it seems to be today; the rule of creation understood, honestly applied to our daily problems is the only one that can bring mankind—photographers included—where he belongs, where they belong, to a community of heavenly qualities.

This may sound very simple, may be unbelievable, but then, the beautiful, the good, IS simple; it just requires responding simplicity of thought to see it and adopt it.

This reminds me of a visit to an excellent print exhibit. First award was given a portrait study of great simplicity and strength. Going around with a friend and admirer of photography as an expressive art, he exclaimed how beautiful it was and then he uttered the remarkable words: "But there is nothing to it, is there?" So it was, no special pose,

FIRST PRIZE (1923)
Commercial Photographers' Class
(P.A. of P.N.W., Victoria, B. C.)
By DEPUE, MORGAN & CO., INC.
Seattle, Wash.



FIRST PRIZE (1923)
Men's Portrait Class
(P.A. of P.N.W., Victoria, B. C.)
By BERGER STUDIO
Portland, Oregon

no spotlight, no cleverness, just beauty, love and tenderness; photography understood, reflected on paper. So it is with life itself: the form which is life counterfeited seems horribly complicated, sometimes cruel, but the true picture of life is just simplicity itself—there is "Nothing to it," but it required wisdom to produce it, a simple mind to see it and the sacrifice of many a cherished but incorrect belief to adopt it.

So many of us are spoiling life's freedom just by our own limitations: for fear of the world as it appears, by watching the competitor, by trying to get the better of him, instead of just understandingly minding our own business, by seeing to it that the principle of right and righteousness in applied in every activity. Thats all we have to do and business will then take care of itself. Instead of individual pursuit, there is required co-operation with the law of life.

The greatest lie ever invented, believed in and suffered for by mankind—our profession included—is the concept that competition as we know it today is essential to the progress of men. The progress of mankind depends on the degree of application of the law of justice and the good. And upon nothing,—that is NO THING else. In the practicing of what is good lies our only protection, in the neglect of this law all our penalties.

Instead of building a business on a principle which can only carry with it sure and good results and under which application photography stands out as a profession of creative intelligence; a scheming scheme is practiced which brings demoralization in tactics and work. The man who learns to appreciate and love his profession cannot spoil it by methods contrary to fairness. He will first pay attention to the quality of his work and through quality earn quantity. Working for quantity only is abusing one of the finest characteristics of our craft.

Some time ago my mother sent from the old country a lovely doll to my little girl. In order to show her how much it was appreciated, the doll had its picture taken; the cabinet print was mounted in a regular folder and mind, I got, when looking at the result, a feeling of great disappointment. There was nothing wrong with that picture but its smooth, pretty face reminded me of hundreds of real portraits seen in showcases everywhere. Of course I am not referring to your case, but to that of the other fellow. Here again, I realized what further there is wrong with our profession. There is hardly any character expressed, hardly any effort made at individual interpretation by the profession.

Some men finish up better, have more experienced retouchers, more expensive mounts, etc., the motive behind such results is just the same: trying to please people instead of giving our personal vision of the sitter and his character. Why do we try to please at the sacrifice of our individuality? Because we are afraid the sitter may not like it, afraid to lose the order; because fear limits the possibilities of our profession. Here again if we acknowledge the principle of life, we shall be guided to do

what is right; we shall not rob our profession of its dignity but we shall preserve it's intellectual character. Having courage to do the right thing always pays, because it is co-operation with the law of life.

I am satisfied that our communities are getting fed up with bread and butter photography, which gives them the same sweetened interpretation of themselves whether they go to A, B, or C. Our profession needs more individuality of expression, that only can revive successfully people's desire for photographs. Advertising, over-advertising, unfair advertising will never permanently do it.

One of the negative human qualities is to blame either the other fellow or the poor circumstances; the sooner we photographers realize that there is something fundamentally wrong with our own concepts, which we ourselves have to correct, individually and collectively, the the sooner will photography, as a fine profession be on the road to progress, but there is only one road,—that is the right one.

After all, whoever finds in his efforts the satisfaction there is in the practice of photography, is the one who scores heaviest.

Possibilities with the Etching Knife

By Carl A. Bergmann

With Illustrations by the Author

To enumerate all the changes that can be made on either negatives or positives with such an insignificant looking tool as the Etching Knife would fill many pages of this magazine. However, I do not wish to write of the everyday routine work which confronts the etcher in a first-class studio, such as straightening a faulty nose, removing stray hairs, improving the outline of too prominent cheekbones, correcting cross-eyes, removing a double chin, reducing the stout lady's figure until she looks "sweet sixteen" again, take out a few neck and chest bones to make Mylady's low-neck-picture look plump and pretty, shape eyebrows, take reflections out of eyeglasses, put hairs on baldheads, etc., etc.

As I said: these and many more are daily tasks which the skilful etcher has to meet in every first-class studio. A veritable beauty specialist he has to be, and his claim to "painless surgery" is better founded than most of those, outside of the photographic profession, whose advertisements are familiar to all newspaper and magazine readers.

But besides embellishment there are other uses where the etching knife is of the greatest help and often indispensable. I suppose nearly every studio has had an occasional order to make a copy of a person who was in a group picture, and where he was so placed that someone's hand

FIGURE 1. FIGURE 2.

was resting on his shoulder. Here the knife must take away that hand and perhaps other parts not belonging to the person in question. It may also happen that someone's arm or leg, a piece of furniture, and what not, must be removed in order to get a good copy of the person wanted. In other cases an arm or other part of the body must be added instead of taken away from the picture to be copied.

Still more varied tasks are encountered when copying old and partially destroyed pictures. And it is here where the etcher can show his skill with the knife.

A good many years ago when I did retouching for the trade, a friend of mine, the owner of an Art and Picture Framing Store, came bursting into my room one day—and I shall never forget the look in his eyes which expressed utter despair and desperation. His legs seemed to give way under him and as he sank into a chair he exclaimed: "Oh, Bergmann, I wish the earth would open and swallow me!"

Upon my questioning him about the source of his distress he began to tell me that a customer had brought him a picture to be framed and had cautioned him to be very careful with this picture, as it was the only one in existence of a dead and very dear relative, which could not be replaced. So my friend promised him that he would take very good care of it. Shortly afterwards he gave it to his foreman with the necessary instruction as to frame, etc.

But what would describe his dismay when the foreman came to him the next day with this same picture in a ruined condition! By an unlucky

FIGURE 3.

FIGURE 4.

accident some glue had been spattered on it and in trying to wipe it off a considerable portion of the picture came off, too, ruining the picture completely. See Figure 1.

Only those who have ever been in a similar situation can picture to themselves how my friend felt at that fateful hour!

Having seen a few rather out-of-the-ordinary stunts of mine in knife-work on negatives, he came to me to see if I could possibly help him out of his trouble.

He had already tried his hand on the original, endeavoring to paint in the scratched away parts, but as the picture was not on paper, but on an opal plate, it repelled all the colors which he tried on it.

Well, I examined the picture, and it certainly looked like a hopeless case, but so had others appeared at first which I had done successfully eventually, and so I told him that I would try my best to help him out.

Whether I was successful the reader may judge by the restored picture, Figure 2.

A negative was made from the original and all the work was done on that.

The owner of the original never knew or suspected that the picture delivered to him was a reproduction. It was in every respect as good as the original.

Figure 3 shows one of the most difficult cases of etching which I was called upon to do.

About two years ago an old Tintype was brought to me to see what could be done to restore it. As the reader can see, the emulsion had peeled

off in spots and scratches so that a considerable part of the picture was gone. A number of studios to which it had been taken "for repairs" had declared that the case was hopeless and nothing could be done to restore it.

I realized immediately that this would not be a case for the retoucher as it would be impossible to fill in the missing parts with the pencil, for the simple reason that not enough lead could be piled on the negative to match the rest of the picture; to say nothing of the grain which the pencil work usually leaves. So I knew the only way to do this work successfully would be to make a transparency and etch out the black spots and scratches with the etching knife.

This was done, and Figure 4 shows the final result.

Patience, a good etching knife and a steady hand will accomplish wonders in the photographic retouching room.

The Austin Tornado of May 4th, 1922

By Fred Morris,

Co-operative Observer, University of Texas, Austin, Texas*

With Illustrations by Dan E. McCaskill

Eastern Cloud

The morning of May 4 was sultry, with clear skies and a very light southeast breeze. By 11 o'clock small cumulus clouds had begun to form. These clouds remained stationary, or practically so; if they had any movement it was so slight that their direction could not be noted.

By noon the cumulus clouds to the northeast had begun to develop into a cumulo-nimbus. There was nothing unusual in the appearance of the cloud at this time. It was just a "thunderhead" from which a shower might be expected later in the afternoon. It remained practically stationary, slowly increasing in size until about 2:30 p. m., when it began to spread southward.

At about 3:15 p. m., what appeared to be cumulus clouds at a very high altitude and moving rapidly were observed coming in from the southwest. Below these and coming in from a point somewhat east of south could be seen ragged patches of dark cloud. The scud floating rather low and at high velocity was coming in from all directions south of a line drawn east and west through the university. These clouds formed rapidly into a huge ugly looking mass with a very low, densely black base and high pink summit. This new cloud was building up at a point somewhat east of the original cloud and about half way between it and town. The development of this second cloud was very rapid; also, it seemed to be moving southward as it developed. At about 3:45 p. m. the first sharp peal of thunder was heard. Up to this time the sky below the bases of these clouds had re-

* Reprint from Monthly Weather Review, May, 1922.

WESTERN CLOUD OF THE AUSTIN TORNADO

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By Dan E. McCaskill

mained practically clear, but now began to show dark streaks, indicating that precipitation had begun.

By 3:50 p. m. a definite movement southward of both clouds was in progress. The eastern portion of the original cloud had become obscured by the second cloud and lightning was more frequent. It had grown dark enough to make artificial lighting necessary in the buildings.

As the second cloud moved southward there was a visible lowering of the central portion of its base. There was a violent churning action about this protuberance, and the whole base of the cloud seemed badly agitated. No true tornado funnel had as yet developed in connection with this cloud, but the projection was lowering and the agitation becoming more violent as it moved southward.

From this time forward, developments were rapid. The whole storm was moving in a direction about 30 degrees west of south and at an increasing rate of speed.

The destructive winds from this cloud were first felt at the State Cemetery, at Ninth and Comal streets, where some branches were torn from trees. At this time it had the appearance of being only a fierce whirlwind. It next struck at Sixth and Navasota streets, where two buildings were badly damaged. This was the first real property damage done by the wind from this cloud. Continuing southward and doing minor property

damage on its way, it crossed First street at Waller. Here one of the tall light towers was blown down across the Tenth Ward Fire station.

From this point to the river a number of buildings in the path of the wind were badly damaged. Upon reaching the swollen river the true character of the cloud was outlined for the first time. An enormous volume of spray was lifted and whirled high into the air. It seemed as though a long white column of smoke had suddenly flashed into existence, and a few moments later as suddenly disappeared.

After crossing the river the whirl moved up the high south bank into Travis Heights, where a number of fine homes were damaged or destroyed.

From this point on the funnel-shaped cloud could be clearly seen. Viewed from the high downtown buildings it had the appearance of being a whirling, churning mass of clouds. Observers could clearly see the materials of the buildings thrown high into the air as building after building was struck. At this point the path was about 50 yards wide.

Continuing in a southerly direction, the wind next struck at St. Edward's College, where the dormitory, gymnasium, and power plant were destroyed.

Men working at Penn Field who were watching the approach of the storm said, "It looked like a funnel-shaped mass of cloud and dust, churning and whirling and carrying things high into the air and then scattering them in all directions." At the center of this whirling mass was a small black core about as big around as a man's body (viewed from Penn Field about one-half mile distant), moving along in a zig-zag path, swinging very much like the trunk of an elephant. As this black core moved forward everything seemed to rush in to meet it. Large trees were torn up by their roots and drawn in, tops first; buildings of all sizes just seemed to go to pieces, and the materials, especially the roofs, sail in toward this central core, where they were torn to pieces and carried high into the air. Some of this material was thrown out at a height of 100 feet or more, while some of it disappeared entirely.

The storm next struck Penn Field—the Woodward Manufacturing Co.'s plant—where the greatest property damage in the storm's path occurred.

Immediately after striking Penn Field the cloud turned sharply to the southwest and passed through the St. Elmo neighborhood, where the Heartkoff Dairy plant, the Harper home, and the Holden residence were struck in succession and completely swept away. Other buildings in the neighborhood were damaged. The width of the storm's path had gradually increased up to this point, and was about 225 yards wide here. Trees blown down along the western edge of the path were lying to the south, while those on the east side were lying to the north, showing the wind to have had a counter-clockwise direction, considering the clock lying face up on the ground.

Continuing in a southwesterly direction, the tornado struck and destroyed a number of farm properties in its path. The next important de-

WESTERN CLOUD OF THE AUSTIN TORNADO

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By Dan E. McCaskill

Cloud destroying summer homes and pleasure resort at Deep Eddy on the Colorado River

struction was in the neighborhood of Davis Hill, about half way between Manchaca and Oak Hill. The tornado seems to have been approaching Davis Hill along a straight line. At the foot of this hill some small houses were destroyed. The funnel then turned abruptly to the west and completely swept away the Bargsley home, killing six persons. A student at St. Edward's college was also killed, and other fatalities increase the total number of deaths to 12. Fifty persons were injured.

From this point on slight damage was done to farm property, as the funnel continued in a westerly direction and finally lifted from the ground. It is interesting to note that when last seen this funnel was lying in an almost horizontal position, and resembled very closely the funnel which swept through the western part of town.

Western Cloud

While the eastern tornado was by far the larger and more destructive, it was not seen by nearly so many people as was the western cloud. It was this spectacular western funnel which practically every one was watching while the eastern funnel formed and cut its destructive path through the southwestern portion of the county.

The wind from this cloud was first felt in contact with the ground at a point about 6 miles northwest of town, where some farm buildings were

damaged. Its next important destruction was about 3 miles farther south, at the State school for the negro deaf, dumb and blind. At this institution the industrial building, the laundry building, and a dormitory were destroyed. Moving in a southwestern direction and along a line practically parallel to the path of the eastern cloud, it next struck at Deep Eddy on the river's bank. At this point considerable property damage was done and two persons injured. Lifting a large volume of spray high into the air as it went, the whirl crossed the river, cut a path about 25 yards wide through the timbered hills, and eventually disappeared to the southwest. The path of this funnel while in contact with the ground was about 3 miles to the west of, and practically parallel to, the eastern funnel.

Every-Day Stereoscopy—Why Not?

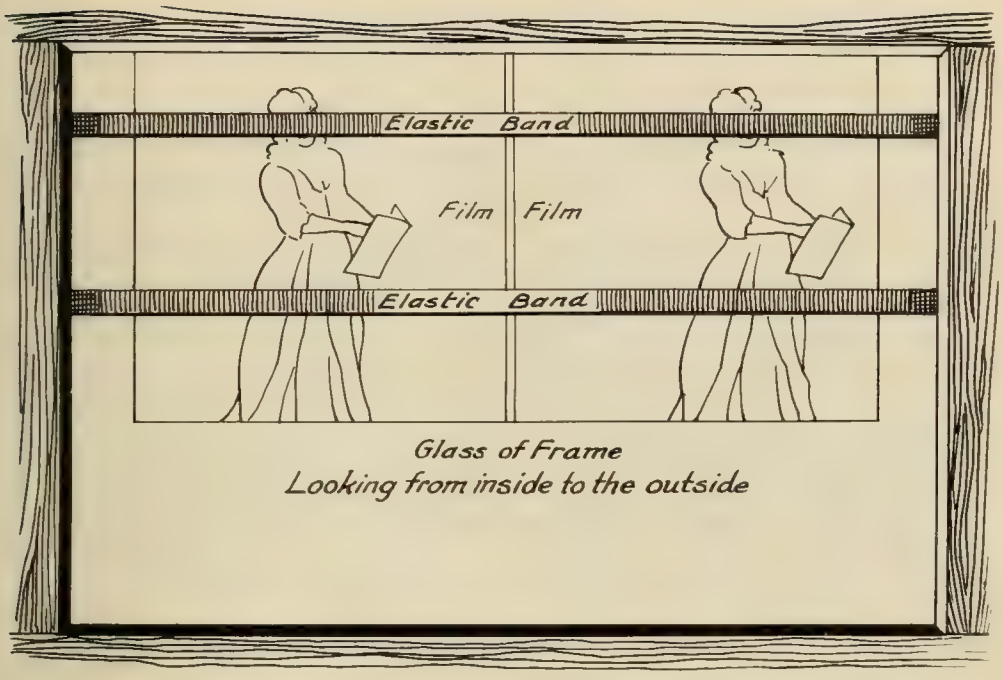
H. D'Arcy Power, M. D.

With Illustrations by the Author

A little over a year ago I stated that the reason we had so few stereoscopic workers was due to the fact that we have so few facilities for the work—lack of cameras, viewing apparatus, etc. I know that when once the possibilities of stereoscopic photography are recognized, when the technique of making a print has been made as easy as that of an ordinary photograph, which is quite possible, we shall have new vistas opened out, the daily employment of stereoscopy in books, catalogues, illustrated journals; in fact, ultimately we will have a public so used to stereoscopic pictures that everyone will acquire the ability to view them without the use of a stereoscope, and the main hinderance to their general use will disappear. With the object of helping matters along I purpose offering some suggestions derived from a practical experience in this field. They are supplemental to the many books on the subject and the excellent papers that Camera Craft has already published.

What is the use of Stereoscopy?

To most people the stereogram is part of a toy; you look thru two lenses, and you see a room in the palace of Versailles with all its little tables and chairs looking stiff and solid; as it is an open street with a lot of little men and women, solid-looking marionettes. Of such are hundreds of stereoscopic photographs made. They are the least important of its uses. But are you a surgeon and wish to refresh your visual memory with some anatomical detail or a step in a surgical procedure, turn to your Anatomy or Surgery with stereoscopic illustrations (which are now becoming common) and there will be the answer to your demand. Not a mere drawing, but solid, natural, as in reality. Are you a botanist, the flower hangs in the air; pistil and stamens are free in space, the corrugations of leaves, spines, hairs, the down on a quince, are real things. So



with shells, fossils, insects; except for color, they live. Coins and medals are excellent subjects. But these things may be of only passing interest to the average amateur. What about art, the pictorial? Is nature only beautiful when its three dimensions are reduced to two? Can we not conceive of a beautiful arrangement of flowers, glass, sliverware, as what not, that shall be more beautiful because you see it as your eyes see it, rather than the conventionalized flat surface that the artist is compelled to employ? There is here a field for endless experiment and triumph. It will demand a different mode of working to those we are accustomed to in regular photography and painting and I hope to deal with this later. Landscape beyond one hundred feet is not rendered stereoscopically nor is it so seen by our eyes, but when the point of interest lies in the foreground of a landscape composition it becomes a proper subject for a stereogram and its beauty is greatly enhanced. Useful or beautiful as are these applications of stereoscopy, they in no way compare with its value in reproducing the human face, nuances of expression, mementoes of the daily life of those we know or love. Where it is a matter of again spending a moment with those who have gone, the stereoscopic portrait gives you a sense of actuality that is often startling. It has no competitor in this respect, with the exception of the kinomatogram. It is an almost unworked field with requirements of its own that are not met by the arrangements and

traditions of the photographic atelier. I expect later to make it the subject of a special paper; in fact, I hope to publish within the year notes on

The Mounting of Stereograms.
The Control of Quality in Stereograms.
Stereoscopy as Applied to Science and Mechanics.
Stereoscopic Portraiture.
Stereoscopy in Natural Colors.

Before taking these up in detail we should point out that for a great number of objects a stereoscopic camera is not at all necessary.

Stereoscopy Without a Stereoscopic Camera

The essence of stereoscopic vision is in the observation of an object from two view points on a common base line. That is what our eyes do. Our eyes see a little way around one side of the object, the other around the opposite. When an object is too far away for this to be possible, stereoscopic vision ceases. A distant tree has none of the rotundity of one near by. Mirror and prism arrangements for giving two images from one lens do not meet these requirements. There is a large field of very valuable stereoscopic work in which the objects to be recorded are at rest. This is the case with all natural history studies, coins, machinery, still life pictures, and within limitations, portraiture and genre, and in all these cases a stereoscopic camera is in no wise necessary; in fact, in some cases is at a disadvantage as against a single camera taking two pictures separated by the necessary distance. The normal separation of the pupils of the eye varies with the nearness of the object observed, and the halves of a stereogram should be at distances apart corresponding to this rule, but the usual type of stereoscopic camera is provided with lenses set for a mean distance, with no change of separation possible. When it comes to taking objects at more than one-sixth of the natural size the angle of view becomes so acute that one or the other of the images is displaced to the edge, or even off, the plate. The difficulty may be overcome, as I have shown in a previous paper ("The Stereoscopy of Small Objects" Camera Crafts, July to November, 1923, inclusive) by the use of supplemental lenses combined with a prism for restoring the displaced image to the center of the plate, but can best be dealt with by using one camera, and moving it to the required distance for the second exposure. The only difficulty is the moving. It must be moved along on absolutely straight lines. There must not occur the smallest rotation. There are two ways of effecting this: one is to have a tripod with a full-sized square head with a rebate at the back or front against which the camera is pressed and along which it can be pushed without fear of it leaving the straight line. Slightly greater accuracy is insured by having a tripod head made of two pieces of wood arranged to slide easily between grooves over one another; the lower part engages the tripod head screw, the upper the camera. They should allow a lateral displacement of from ¾ to 3½ inches. It is easily made by any carpenter. When devoid of these conveniences I have taken perfectly good

MARKET BOAT, VENICE

By H. D'Arcy Power, M. D.

stereograms by fastening a ruler or yardstick on the table, pressing the camera up against it, exposing, moving it along the needed distance and again exposing. The actual amount of lateral displacement varies with the focal length of the lens as well as the distance of object and lens. It can be calculated but is soon learned by observation.

On Mounting Stereograms

Among the minor troubles that have held back the general making of stereograms the difficulties of mounting have played a large role. You cannot make a direct print from a stereogram negative and mount it as it is, because the right and left hand pictures must be reversed in relation to one another to obtain stereoscopic effect. Furthermore when reversed they must stand absolutely straight on their base. There are several different ways of proceedings. The negative may be cut through, the halves reversed, and then accurately united in the new position. There are difficulties. If glass plates are used, cutting is dangerous and rarely clean, connecting them together most unsatisfactory. If, as should be the case, films are used, the halves may be reunited with lantern plate binding but it leaves an unpleasant broad white band in the center of the positive. If the free ends are united by fish glue or Grippit the center prints out blotchy. Furthermore, if such negatives are much printed from they always become more or less detached in time. The next way of proceeding is to employ a special frame for stereoscopic printing, which I need not describe. It works well but is troublesome, negative and print have to be twice arranged and two exposures made. A fourth way is to make a straight print from the negative, cut it in two, reverse the halves and

attach each separately. The difficulty lies in getting these two halves in the exact position to one another that is necessary before the adhesive dries. Pastes are very bad in this respect. Dry mounting is much better, but I have obtained the best results with Grippit, which seems to be a solution of rubber in a light hydrocarbon. This adhesive must be used in a special way or it will entirely fail. The menstrum is so volatile that if it be brushed on one part of the print it will dry before the edges are properly moistened. The way to do it is to pour a small pool of the fluid onto the mount, place the print on it and move it round so that it exudes at all edges; you can now easily place it in its proper position. Don't trouble about the excess of adhesive; even if it gets onto the surface of the print it will all rub off with a clean rag, and as it is a rubber basis, will leave mount and print the cleaner. This is best done when it has dried off a little. Stereograms so mounted are satisfactory but always look a little bare and unfinished.

I will now give the technique that I have worked out and find easy and accurate. By far the best negative for stereoscopic work is the Eastman Cut Film. It is made with every kind of emulsion that is used for plates, is devoid of halation, and with care in washing does not scratch. And here let me state that technically perfect negatives are much more important in stereoscopy than in other photographic fields. Dust and scratches appear in a stereogram not as surface blemishes but as solid particles floating between the eye and the picture. These troubles may be much minimized, for if after fixation and surface washing it be immersed in a 10% formaldehyde bath for from one to five minutes, it will be much toughened and less likely to be scratched during washing and cleaning up. The same applies to prints—they ferrotype much better if passed through a formaldehyde bath. But to return to the mounting First we need to prepare our negative film. Using a print cutter we accurately trim both ends of the negative, then with the film side up we make a small nick at the top of the **left** hand element; we then divide the two elements and thereafter remember that the nicked element is to go into the printing frame on the **right.** The next point is to have a printing frame reversed for stereoscopic printing. Choose a 5x7 inch and see that the glass fits so as not to shift about. Take a piece of elastic tape about ½ inch broad and moisten ½ inch with LePage glue, press it down ¼ inch over the front of the glass, bring it over the edge to the back, press it down and fasten it on with a strong clip, let it dry, then extend the tape over the back of the glass, pulling it slightly taut, and fasten to the opposite edge. The position of the tape from the upper edge of the printing frame should be about half an inch below. A second piece of tape should be stretched across about 1¾ inches below the first. We now have a printing frame with which printing can be effected simply, rapidly and accurately. Slip the notched negative beneath the rubber band face up on the right hand side, see its top is even against the top of the frame, then do the same

with the left hand element, leaving any distance between them that may be desirable. The printing paper is slipped also under the bands over the negative elements and the exposure made. Always take a glance at the front of the frame to see that you have not disturbed the negatives in inserting the paper. With me it is a rare accident, and can be immediately corrected. I use a piece of printing paper somewhat larger than the negative elements—it allows for exact trimming to cover the mounting cards, if such are used. I use in many cases thin cloth or oil cloth as a mounting base; it saves bulk and weight.

The technique I have here described has many advantages. It is simple, it leaves the negative elements free to use in the enlarger, it permits the accurate adjustment of the distance between the corresponding parts of the two elements, which I prefer to keep close to two and a half inches (distance at which direct stereoscopic vision without a stereoscope is quite easy). It leaves a dark mount all round and between the pictures and this is an advantage in viewing.

Stanford vs. University of Southern California

By Allen Young

With Illustrations by the Author

Photographing sporting events is a hobby of mine and I always look forward to the excitement and enjoyment I derive from the photographing of any athletic event, especially a football match.

Although many photographers prefer the direct vision type of camera for work of this nature, the reflecting type is my favorite instrument. The very fact of being able to keep sharp focus on the subject right up to the minute of exposing is to me one great advantage the reflex camera has over the direct vision camera.

I know that there are certain claims made in favor of the direct vision camera as against the reflex, such as the ability to not only watch the particular incident we wish to photograph but also the rest of the field of play. The camera being held at eye level is another advantage claimed.

What is the proper view-point?

I believe that it is the point that gives the effect wanted, which might have to be made with the camera held close to the ground and again, it might be from a higher view-point than eye level or somewhere between those different points.

The great advantage of any particular instrument lies in our familiarity with it and the knack of being able to handle it automatically, thereby enabling us to give our undivided attention to the subject we wish to portray.

SAFELY OFF (Top)

UP IN THE AIR (Bottom)

By ALLEN YOUNG
Oakland
California

ALMOST THERE

By ALLEN YOUNG

The illustrations are from photographs of the Stanford versus University of Southern California game and a few words as to how they were made will probably give a better idea as to the methods I adopt to get results.

When watching a game I find myself anticipating the spot where a particular play will take place and focusing on it. I then lift my head, hold the camera stationary with my finger on the release, swing my body gradually to right or to left if necessary to follow the scene of action (still holding the camera in the same position) and when I see what I want, bang goes the shutter. Working this way eliminates any danger of my missing the actual play or of any one blocking my view at the last miniute which might happen if I had my head buried in the hood of the camera.

Some might doubt their ability to handle the camera in this manner, but I assure you that a very little practice will make you proficient in this method of using your camera.

Both of the illustrations "Up in the Air" and "Almost There" were made after this manner.

In "Up in the Air," we have the Stanford Interference on the ground and the U. S. C. players tackling Paul Murray who still has the ball tucked under his arm, although he is taking a beautiful dive to the ground.

"Almost There" is the play directly preceding the one by which Stanford made the first touch-down of the game.

Tthe other illustration "Safely Off" shows the ball in the air after being kicked by Otto Anderson of the U. S. C. team.

I used to have difficulty photographing a kicked ball. I either got the ball leaving the toe of the kicker or when it was too late and missed the ball altogether, finally I hit on a plan to overcome this fault. I now wait until I hear the sound of the kicker's boot connecting with the ball and then I trip my shutter. It works like a charm and I now get good action, with the ball at a nice height and the players all ready to go.

The illustrations were all made with a Popular Pressman reflex camera fitted with an Aldis anastigmat lens f4.5. The exposures were all the same namely, 1/350 second at aperture f5.6. The Seed Graflex plate was tank developed in Metol Hydrochinon.

The negatives were enlarged on P. M. C. bromide paper.

A Criticism of the Open Window

By Henry A. Hussey

How often have you heard, and thought, that there is a wealth of pictorial material in some remote place? The worker in New York may think of the expanse of landscape in California, and the Californian want to try his hand at the picturesqueness of the East Side. Most of us are apt to pass by the things that we see frequently as of little interest from a picture standpoint, while these very things may inspire and be the subjects of successful work by one coming fresh to them.

This is brought to mind by G. H. S. Harding's picture, "The Open Window," made in his living room. This aptly illustrates the need of studying things we see often to catch the time or mood for picture making.

The sunlight playing on the Iris flowers places them in the highest key and makes them the center of interest. Back of them is the play of light on the foliage, but lower in tone, and still in the distance the suggestion of other forms, just enough to make for mystery and awaken interest in what may actually be there. This is one of the strong points of appeal, for one looks there and back again to the Iris, the eye being kept from going too far afield by dark walls and hangings which make a contrasting frame for the area of interest, and yet have the necessary quality of tone and texture. It is interesting to see how well the idea of circular observation is carried out, with the point of interest on the natural path of the eye, and placed in one of the strongest positions of the picture space. At the same time the darks and lights are of about equal area, the darks emphasizing by contrast the brilliancy of the sunlight.

THE OPEN WINDOW

Exhibited at the
San Francisco-Oakland
Salon, 1923

By G. H. S. HARDING
Berkeley
California

IV. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from December Issue)

CHAUNCEY M'GOVERN

Closer Comparison Made Possible by Fotografy:

For the benefit of attorney readers (and for their fotografer friends) who have never used Foto-GRAFIC or Foto-MICROGRAFIC illustrations in courts and who may still doubt their great effectiveness, let me quote here a single paragraph from "Wigmore on Evidence," Vol. 1, Sec. 797 (1904):

"When the original is produced, but it is desired also conveniently to collate specimens by photographic groupings (as by placing many specimens in juxtaposition on a single sheet), the original is not literally unavailable, in the sense of being tangibly beyond procurement. Nevertheless there are still lacking and unproduced to instantaneous perception the minute resemblance and differences which appear upon close juxtaposition and **fade from memory** in the operation of passing from one document to the others. Hence the photographic juxtaposition does, in strict sense, "produce" these otherwise unavailable minutiae, and such grouping is therefore allowable without even any deviation from technical principle."

When Documents Are Owned By Others:

In cases involving questions of forgery in documents which are not in possession of the side which wishes to Foto-GRAF or Foto-MICROGRAF the paper or portion of the paper in dispute, it is well that attorneys, fotografers, clients and others be advised that these papers are —by law— available for inspection—and for fotografing—by the opposing side; that

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No. 5- TO PROVE Indentations of writing (projecting on reverse side). Frequently of vital concern in proving TRACED Forgeries; Side-lighting from box described in the text; showing (1) Face of portion of document in dispute; (2) Reverse of the same section; and (3) Contact Print of Same Negative made by REVERSING the NEGATIVE in the PRINTING-FRAME (for easier reading by Jury); each negative by 12-inch II-B Tessar 6.3 lens; 22 stop; 50 minutes' exposure; Process film; Contrast developer.

is, before the trial or after the trial has begun, either side is entitled to inspect and fotograf documents in the hands of the other, once "legal action" has been instituted.

Even fotografic illustrations—if they are to be used as "evidence" by one side—are available for inspection and fotografing by the opposing counsel.

Detailed information on this point—and other phases of "forensic fotografy" not described in these chapters, will be found in my supplementary brochure entitled "Preparing for Trials Involving **Forgery.**" ($1 postpaid).

Foto-MICROGRAFIC "Contact Prints" vs. "Bromide Enlargements":

It is not at all my desire to denounce or belittle the making and showing of "bromide enlargements" in the courts. I am all too well aware that "bromide enlargements" may occasionally be quite necessary, and in most cases they are useful. But the fact remains, that "direct enlargements"—that is, "contact" prints from negatives where the writing Foto-GRAFED is enlarged directly on the plate or film itself—are much better than prints made by the "bromide process" where the paper does not "contact" with the negative.

It must be plain to all that with a distance of from four to ten feet of space between the negative and the fotografic paper, the resulting "bromide enlargement" could not possibly be as clear and sharp in tiny details as is the case when the paper is of the glossy variety; is placed in absolute contact with the negative in a tightly-closed printing frame; and where the resulting prints are perfectly squeegeed.

Specially Engraved Paper "Measures:"

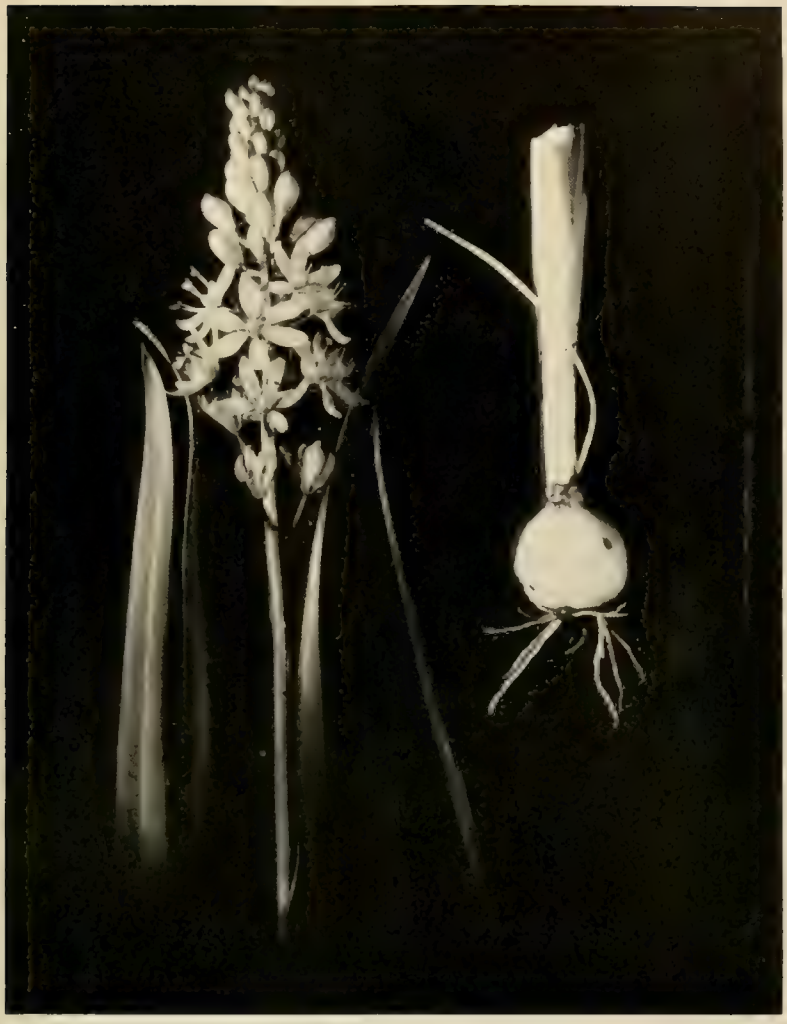
Much trouble is experienced, by the fotografic operator, in getting different negatives of the different parts of the same document to be of the same degree of "enlargement" or "reduction" as the case may be. The regular wooden rules are TOO THICK to go inside the printing-frame used to hold the documents, if two sheets of glass are used to hold the papers without creasing or folding. Thin steel rules are, in their turn, too difficult to bring out **clear** in a negative when they are of "silvery" color and the documents are of white paper. And the stray "paper rules" available are so INACCURATE when it comes to fractions of inches that they can not be used with any degree of satisfaction. In any event, what is needed for effective Foto-MICROGRAFIC Negatives is a very thin rule that shows sub-divisions so small as 1/100 of a single inch.

After writing in vain to various manufacturers of scientific apparatus, I went to a local engraving house; ordered a **ten-inch** rule—with no figures —engraved on steel, by their "engraving-machine"—no mere "hand-work." Placing this ten-inch rule, without any figures to indicate that the "divisions" were INCHES, or parts of inches, I had them then engrave the same sub-divisions on a steel fragment only ONE INCH long: The result is a one-inch steel-plate from which I can have any number of thin cardboard rules printed at leisure, each sub-division 1/100th-of-an-inch,—thin enough to not affect the equilibrium of the papers placed between sheets of glass while being "negatived."

A final advantage of the special 1/100th-of-an-inch rule is that when placed on the original at the time of making "Foto-MICROGRAFIC Negatives" the rule, in the negative, indicates at a glance to what degree of "enlargement" the negative has been made. The original rule being one inch, the operator has merely to "square" the number of inches of the rule, or number of 1/100ths-of-an-inch, and he has the "number of TIMES" the original writing has been ENLARGED in the negative. The same rule applies to BROMIDE enlargements made from these Foto-MICROGRAFIC Negatives.

The term "Foto-MICROGRAFIC" is used in this writing to mean a negative made through an extremely long camera—which thus becomes practically the "body" or "barrel" of a microscope—with short-focus lenses specially made for enlarging, directly on the negative, to some 100 times or larger.

(Continued Next Month)



WILD HYACINTH

By DAN E. McCASKILL

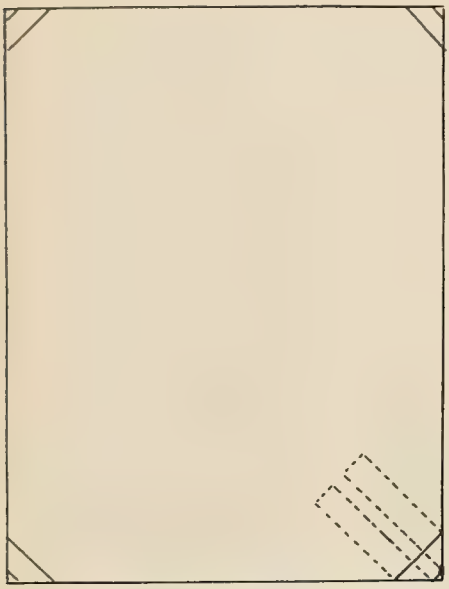
WILD HYACINTH

By Dan E. McCaskill,
Austin, Texas

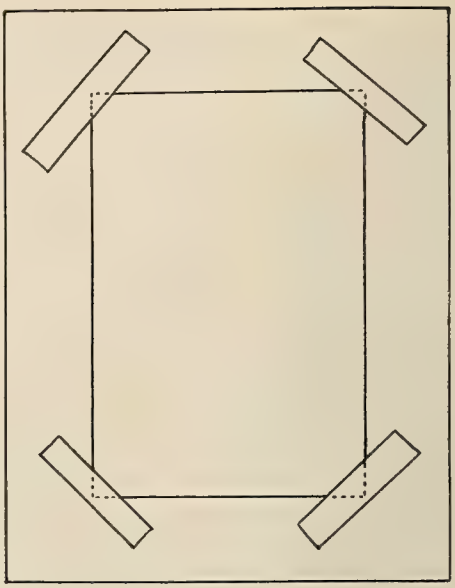
With Illustration by the Author

Here is a closer kinsman of the wild onion, but one whose fragance and beauty both appeal much more strongly to refined human sensibilities, than do those of its lower kinsman.

Color, a delicate lavender.



KIT FOR FULL SIZE FILM, SHOWING METHOD OF FASTENING CORNER ON BACK OF CARDBOARD.



KIT FOR HOLDING SMALL FILMS IN LARGE PLATE HOLDERS.

FILM KITS

Herbert C. McKay,
Eustis, Florida

With Illustration by the Author

I recently had occasion to make some stereo views which necessitated the use of a panchromatic negative. I had no means of securing plates 3¼x6½ to fit my plateholder so decided to make film kits to take panchromatic film which I cut down from 4¼x6½ stock.

I secured a piece of cardboard the size and thickness of a regular plate and then glued corners on it as shown in the accompanying cut. These corners held the stiff film very satisfactorily and did not interfere with the work in the least as they covered an area outside the mask used in printing. This gave me an idea in regard to using smaller film in five by seven holders, and I at once tried this method. It works fine and now I use only such sizes as fit the work in hand. I find the saving in material large enough to justify the slight extra work involved. I am using 3¼x4¼ and 4x5 film regularly in my 5x7 camera and then enlarge. The long focus lens, (seven inches) on these sizes makes a very good picture indeed.

In addition to the above, these kits enable the professional films to be used in cameras of small and irregular sizes.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

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The Passing of Edgar Felloes

MR. EDGAR FELLOES

Edgar Felloes, erstwhile Editor in Facto of Camera Craft, departed this life on Sunday, December Ninth, after a long illness dating back to June of this year. From that time on this publication was bereft of his guiding hand and mind.

Men have been esteemed and loved by those who knew them well but our dead friend was loved on sight and esteemed by divine ordination. God put upon him the stamp of goodness, gentility and nobility and it became the bearer like the shield of the Crusaders.

A few days before his death, Mr. Felloes said: "This life is after all only an apprenticeship." The truth shall have been gloriously proven to him by now for his worth has raised him to a journeyman's place near to the throne of his Maker and Redeemer. This belief must console those of us who knew him and were close to him and whose hearts are heavy at the loss of so dear a friend.

S. B.

Our Editor-in-Chief

In a letter just received from our Dr. H. D'Arcy Power, he states that in his opinion it is unfair to CAMERA CRAFT to longer retain his name as Editor-in-Chief. His almost continuous residence abroad these last two years and the uncertainty of his return to San Francisco made it impossible for him to perform his duties. In the heartiest way he assures us that he will retain his interests in the magazine, its readers and in the Digest department conducted by him ever since the inception of CAMERA CRAFT.

We may also expect from him articles such as have always been eagerly read by those of our readers as are inclined to the technical and scientific side of photography. These will be as his time permits.

We congratulate Dr. Power on having achieved such a position as enables him to enjoy life in the places and under the circumstances most to his liking and we feel that our readers are no less to be congratulated in retaining the interest of a man of such high standing in the scientific world, especially since we are to lose nothing of his research work from these pages. I. M. R.

Our New Department

Commencing with this number a new and valuable department will be added to the pages of Camera Craft. It is for all photographers, be they amateur or professional, who are interested in Pictorial Photography.

Each month a picture will be selected from the work of some well-known Salon Exhibitor because of its pictorial and composition values. In addition will be a criticism by another well-known Exhibitor that will be constructive and educational.

The pictures will be representative of all the different schools of photographic expression for it is only by comparison that we can hope to benefit ourselves.

Let us all get together and forward the interests of our grand old art—photography. P. D. A.

FORTHCOMING EXHIBITIONS, 1924

February 3rd to 29th, 1924—The Southwest Museum and the The Southern California Camera Club announce their Second Exhibit of Pictorial Photography. Exhibit Entries close January 23rd, 1924. Particulars from Print Committee, Southern California Camera Club, Avenue 46th and Marmion Way, Los Angeles, California.

March, 1924—The Fifth Annual Salon of Photography, under the auspices of the Buffalo Camera Club. Last day for receiving prints, February 1st, 1924. Particulars from the Secretary, Lester F. Davis, 463 Elmwood Ave., Buffalo, N. Y.

March, 1924—Pittsburgh Salon. Last day for receiving prints Monday, February 4th, 1924. Particulars from P. F. Squier, 237 Avenue B., Westinghouse Plan, East Pittsburgh, Pa.

For the Professional

In the Interest of Commercial and Portrait Photographers

Photographs in Business-Paper Advertising*

By Benjamin Berfield

After four years of continuous experiment a manufacturer of heavy machinery recently brought out a new machine that in some respects is several years ahead of its field. It is a machine that will almost sell itself on demonstration, but unfortunately, owing to its size, demonstration is next to impossible except to prospects located near the plant. Therefore it has to depend on salesmen and advertising for its sales.

The manufacturer had been using business-paper advertising for a number of years and eventually had evolved a certain individual style. One of the features of his advertisements had always been a picture of the machine advertised, the picture running across the bottom of the copy, just above the name plate. The copy itself had been set in a fairly legible but not really distinctive type.

As soon as he had the new machine ready for marketing, he announced it in his advertisements, following his accepted style which had proved its value over a period of years. But after three or four pieces of copy appeared he found that the trade was still woefully ignorant of the value of the new machine. Salesmen reported that prospects said they had heard of the machine, but in only a very few cases had they been impressed by the advertising.

An experienced advertiser finally pointed out the reason for the failure of the new campaign. The root of the failure was in the photographs.

At once a new series of photographs was prepared, each picture showing a man working at the machine in such a way as to point out one of the revolutionary improvements. The general style of copy was changed to a bolder type with hand-lettered headings. Where before the manufacturer had been announcing his new machine in his usual tone of voice, he suddenly changed the tone and got attention.

Advertisers in trade papers are frequent users of photographs. In fact a good majority of the advertisements in some trade papers carry photographs of the product. But a majority of the advertisements do not show that advertisers are getting the most out of their illustrations.

A manufacturer going into general advertising realizes at once that a good picture of his product in use will be much more effective than a still-life. Even if

Let Them Time the Tumbler Heater!
Put on a neat demonstration for your customers. Let them see for themselves how quickly the Tumbler Heater brings a glassful of water to boiling. It's only a matter of a few minutes.
Then let the customer lift it out of the water and see how it is almost impossible not to turn off the current with the same movement!
The Westinghouse Tumbler Heater sells itself because it is so quick — so safe — so simple and so useful. Dentists, doctors, everybody will want it for use in their business or home.
Get a stock from our nearest jobber and let it sell itself for you!
Westinghouse Electric & Manufacturing Company
Mansfield Works
Mansfield, Ohio
Westinghouse

HERE THE ARM WITH THE WATCH IS THE ONLY HUMAN ELEMENT, BUT IT SERVES NOT ONLY TO EMPHASIZE THE PRODUCT, BUT ALSO EMPHASIZES THE CAPTION.

Courtesy of Printers' Ink Monthly

Courtesy Machinery Field Service and Printers' Ink Monthly

his product is sold in a package he usually tries to show the package opened, often on a table near something that is being made from the contents. The collar advertiser seldom shows a picture of the collar by itself, but almost always displays it being worn. The same principle which leads the advertiser in general mediums to show the product in its relation to the user should lead the business-paper advertiser to show his product in action.

But the business-paper advertiser says that he is going to a different class of prospects. Where the general copy is intended to reach doctors, engineers, lawyers, clerks, plumbers, founders, clothiers, druggists, and grocers, his business-paper copy is intended to reach just one class. If he sells machinery he is after the owner of a large factory. If he sells clothing he is after the owner of the retail clothing store.

For this reason he feels that a photograph of the product as it stands without any human element, will tell the story. But he forgets that the clothier or the factory owner is moved by the same impulses as a business man, that he is as a consumer.

One of the first duties of any advertisement is to get and hold attention. Once the business-paper advertiser realizes this thoroughly he will begin to sense the need of more action in his pictures. Put two pages face to face in a trade paper and the one that will get first attention will be the one in which the photograph has the greatest human interest. This fact goes for the factory owner as well as the clerk, for the storekeeper as well as the shopgirl.

Some of the most effective business-paper advertisements appearing currently supply the proof.

In choosing photographs to be used for business-paper copy there are several simple rules to be observed, rules that are fundamental. Other rules naturally follow, but these are questions of individual fields and trace back to the basic rules in the end. None of these rules is inflexible, but each one is of wide application, nevertheless.

As a first rule, it might be set down that it is almost always best to display the product. The product is what you are selling, and in trade papers the product is the thing that holds the interest of the

prospect. But the product alone is like a stage setting without actors to animate it.

So next, it is well to introduce the human element. If you are advertising vacuum cleaners, show a woman operating a cleaner. If you are advertising clothes, show the clothes on models. If you are advertising a machine, place it in the hands of a workman.

The next thing to do is to put the person or persons in the picture in as natural a pose as possible. It has already been pointed out that readers of business papers study copy pretty closely. For that reason they will be only too prone to catch any artificiality in posing, and if the model is posed in an impossible position the picture is damned as good advertising.

A man who has had a great deal of experience in posing photographs of this kind finds that it is sometimes necessary to distort the model a little in order to get the effect desired. Never, if possible, does he show a full back view of any person operating a machine. In rare cases he has to break this rule. Ordinarily, however, he finds it better to make a slight error, so long as the pose is not obviously unnatural. He also finds it desirable to pose the models in such a way as to make them seem deeply interested in what they are doing. A man bending over a machine or with his features lined with exertion gets attention quickly.

In posing the model it is well to study his position so that he will center the attention on the feature being advertised. This is only the application of an old advertising principle.

Get as good photography as possible. A good, clear, well-posed photograph will be the most effective.

If there is some certain feature of the product advertised which needs further explanation as to construction, this often cannot be shown by a photograph. However, it can always be handled by a careful draftsman's sketch. A manufacturer of a patented feature in coats uses a line insert in a corner of his regular half-tone to bring out his special feature. A maker of machine tools does the same thing with certain parts of his tools that need further explanation. Both of these manufacturers hold the human-interest element, however, by photographs of their product being used.

In preparing photographs for business-paper copy remember that your prospects are first of all deeply interested in their own business. They look to you for something that will help them in that business and they are keen critics of anything you have to offer. They study your advertising carefully with an unfailing eye for defects or excellences.

But they are also consumers—which means that they are affected by the same general factors that influence any consumer. They like action. They like individuality.

Therefore you must use a combination of principles that will hit them both as general consumers and as business men.

If you want to test out the thing for yourself get a copy of any business paper and study it for the effectiveness of its advertisements. You will find your attention turning inevitably to the copy that has the most originality, the most action and the most human interest.

Jack O'Leather
REG. U.S. PAT. OFF.
What Is Your Situation For Fall?
Have you a boys' line which you can feature?
Is there anything about your department exclusively yours to distinguish it from others in town?
Must you constantly watch your competitor's price tags, or do you get your deserving margin of profit?
WHY NOT LOOK INTO JACK O' LEATHER? To have its exclusive agency is an honest to goodness Franchise of Value!
Why Not Look Into Jack-O'-Leather?
JACK O' LEATHER is thoroughly guaranteed. Its pants are reinforced with soft, washable leather at the wear points. The splendid modeling and careful tailoring (all done under our own roof) makes it a Stylish Suit, outside and a Durable Suit inside.
The men are showing Preis Overcoats, Preis Students Clothes and "Tommy Two-Pls" the two pants Boys' Line interwoven for double wear.
The Agency for Fall may be open in your city. We are at our expense for a representative.
J. J. PREIS & CO.
636-638 BROADWAY, NEW YORK

A real boy in a real suit makes an unmistakable appeal for business. This kind of photograph appeals to the retailer because it obviously tells the truth.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

The January Board Meeting of the Officers, P. A. of A., has been called by President Stearns for the second week of the month, in Detroit, Mich. As usual at that time, plans for the coming year will be discussed and the great question of time and PLACE of the 1924 National Convention decided. We are all anxiously waiting to learn the result of the membership drive by the California Convention Committee as of course, this will be the prime factor in allocating the Convention.

That the Board may have as much material as possible on hand in the way of suggestions from any and all members for the improvement of the Association, President Stearns will welcome letters on pertinent matters to be brought up at the meeting. Just write Rochester, Minnesota on your envelope and he will get it.

Several Committees will be appointed at the January meeting as follows:—Committee on Membership, Committee on Admissions, and Committee on Judiciary. The Committee on Legislation was appointed some time ago with Mr. W. H. Manahan, Jr., Hillsboro, N. H., as Chairman; W. H. Towles, Washington, D. C. and H. C. Watton, Oklahoma City, Okla., as members. It was important that this committee be appointed early during the Congressional recess thereby enabling the members to interview Congressmen while at home. The main thought in mind now is to push the revision of postal regulations in favor of photographs with the idea of placing them in fourth class where they will enjoy C. O. D. and insurance privileges. A bill to this effect was ready for introduction at the last session but was crowded out at the final moment by more urgent legislation and filibustering. Present prospects are very good for winning our point in the early periods of the present session. Possibly a lower rate may be secured, if the photographers of the country come through and lend their aid to the Association by having a larger membership to impress Congress with the necessity and justice of the appeal. We hope that every photographer who receives a statement for 1924 dues or an application for membership will see that in the long run, he is really and actually benefiting himself by supporting the P. A. of A.

Winona School

The aftermath of the 1923 session of Winona School has resulted in a flood of commendatory letters from students which may best be quoted by the oft used phrase, "the best investment I ever made." Certain ones dwell on the technical, the ethical or the business benefits derived from the course while all agre, it is the greatest gift the Association has ever given the profession.

It is a little early to predict plans for the 1924 session as the management will rest in the hands of the Trustees, as provided by the revised Constitution. Their appointment will probably be made during December to permit them to function as soon as possible and make arrangements with a Director for 1924. Mr. W. H. Towles of Washington, D. C., has held this position for the past two years and is largely responsible for the success and rapid growth of the school. Just whether he will again accept the position remains with the Trustees and himself.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

December 14, 1923.

To the Members of the P. A. of California and all Professional Photographers of the Pacific Coast.

Greetings:

I have been asked to write an open letter to the members of our California Association and the Pacific Coast Professionals.

By the time these lines are printed the Holidays will be an event of the past and, in extending to you the Season's Greetings it is my hope that, not only has your Christmas Business been satisfactory and profitable; but that the new year holds in store an abundance of health, happiness and prosperity for you and yours.

Our infant, the P. A. of California is just entering its second year and it is the wish of the Board of Directors and myself that, as it develops and grows stronger so will the individuals engaged in the profession of photography prosper and grow. If our Association can, in some small way, help in this development its mission will have been fulfilled and the way paved for greater accomplishments in the future.

You are all familiar with our activities in attempting to swing the National Convention to San Francisco next year and, as I write—during the middle of December, we are still short on the membership quota necessary to gain recognition. The Directors of the National Association meet at Detroit early in January to make the decision and there is still time for those of you who have not done so, to join the movement.

We who have been active in this Convention drive are keenly appreciative of the wonderful support of the entire Coast, from Vancouver to Los Angeles, and thank you all for your interest and memberships. It is tantalizing though—after almost a year of effort—to have arrived so near the top without going over, so I am going to make one more appeal, on behalf of the Convention Committee, to those who have not taken out National memberships, to do so at once. A card to Camera Craft will bring full particulars and blanks.

The decision of the National Board will be published next month and when you read it you will want to know that you did your share.

Our own monthly meetings for the coming year are being planned along lines which seem to have the approval of the majority of the membership and we look forward to an interesting and instructive series of practical demonstrations and anticipate good attendance beginning with the January meeting.

Again wishing you all the good things of life for the coming year, I am,

Sincerely,

LAURENCE B. MORTON,
President.

Focal-Plane Shutter Efficiency

When through using your focal-plane camera (whether Graflex, reflex, or non-reflecting), remove all tension on the curtain spring. If this is not observed your slower speeds will soon go back on you and your whole table of speeds will be useless. Do this after each days' use. No spring will continually work with precision if kept wound up to a high tension. Let your spring down. Contributed by R. L. McColm.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

Enlarging

This is the era of small cameras and small negatives and to get a print of fair size it is necessary to make an enlargement.

To make an enlargement is not a difficult process. Anyone who can make a print from a negative should be able to make an enlargement from it. The only real difference between the two procsses is, that in one process the paper is placed in contact with the negative and exposed that way. In the other the negative is put in the negative holder, placed in the enlarging camera and the image projected onto the sensitive paper, the size of the enlargement being controlled by the distance between the negative and the paper.

Apparatus

There are several types of cameras on the market for making enlargements.

First of all is the fixed focus or box type. At one end of the box is the negative carrier and at the opposite end is the paper holder. In the inside of the box itself is a single lens placed at the correct distance to insure sharp focus of the negative on the paper.

The general practice when using this camera is to place the paper in position in the darkroom, and carry the camera out into the daylight, place it with the negative facing the open sky, and expose for a certain length of time.

The length of time can be ascertained by exposing a test strip of paper in the camera and developing it first before exposing the full sheet of paper. After the exposure is completed the camera is carried back into the darkroom, the paper taken out and developed.

This method of working has its limits. The negative can only be enlarged to one size. If only part of the negative is to be enlarged, the size of the enlargement will be in ratio to the size of the negative part selected.

Daylight Enlarger

Some amateurs still use daylight as the source of light for their enlargers and while it gives splendid results, it means working during the daytime and that is not always practical. Nearly everyone now prefers the convenience of being able to do their work at night by means of artificial light.

There are numerous types of enlarging cameras that use artificial light. Some makes are fitted with reflectors, others with condensing lenses. Both models are popular and both have their adherents.

The automatic self-focusing enlarger is the very latest addition to the enlarging family. As this machine entirely eliminates focusing it is of great advantage to the amateur, especially the beginner who generally has difficulty focusing his image on the easel. When using it the operator has only to raise or lower the camera until the projected image is of the desired size and it will be in focus.

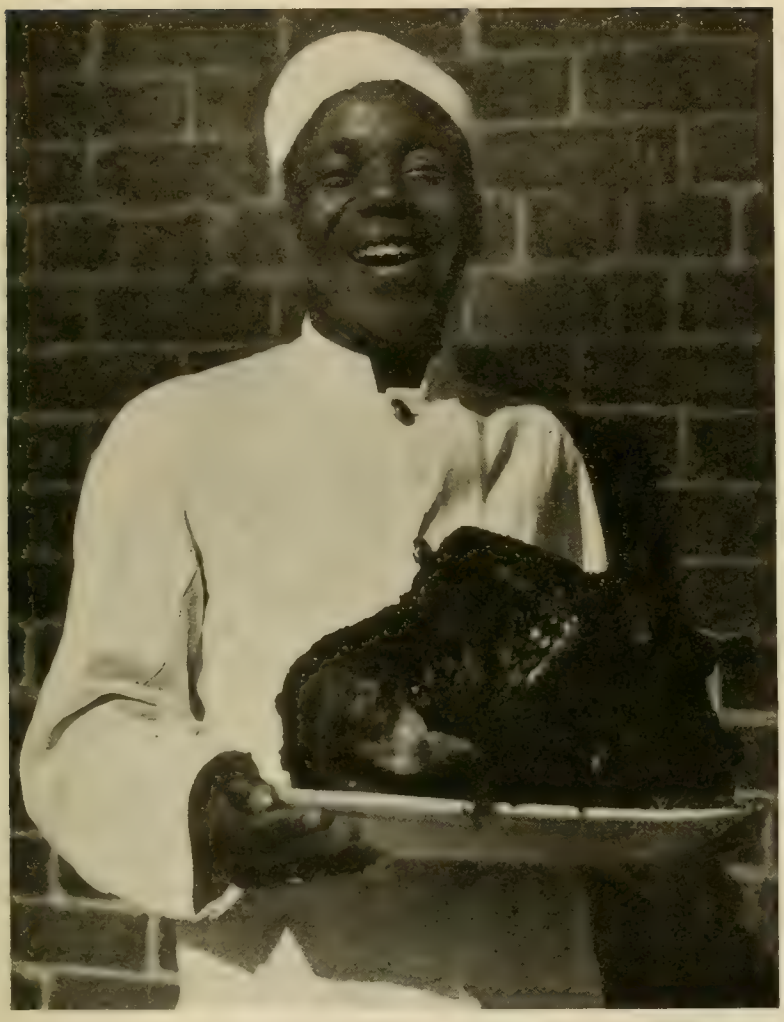
A number of amateurs build their own enlarging cameras and Camera Craft has published several articles with working drawings showing how to make an enlarging camera.

Type of Negative

What kind of negative is best for enlarging? This is a very vital question as the quality of the negative concerns the character of the finished print.

A negative that has been fully exposed and developed so that it is soft and rather thin with harmonious gradation between highlights and shadows will make the most satisfactory enlargement.

The negative should also be free from scratches and spots as such defects are greatly magnified in an enlargement.



O YOU CHRISTMAS TURKEY!

Posed by
EDDIE GRIFFEN, Chef
Southern Pacific Co.

By JAMES J. MORRIS
San Francisco
California

Enlarging Papers

The variety of enlarging papers obtainable is almost unlimited and the worker should have no difficulty in selecting a paper that will fill his requirements.

For small prints, one of the smooth matte papers will be most desirable, whereas, for large prints, a paper with a rough surface will give the best results. For sunlit landscape scenes a buff stock is very fine, giving a tone to the print that is very suitable for this type of subject.

Holding the Paper

The simplest and easiest way to hold the paper is to use either a printing frame the size of the paper that is used or, to have a paper holder made for the purpose. Either method is very satisfactory.

It isn't necessary to use glass in the frame as the pressure of the frame back will hold the paper flat.

Focusing

To simplify focusing the negative should be placed upside down in the negative holder, emulsion side facing the easel. If only part of the negative is to be enlarged, the balance of the negative should be covered with a paper mask so that the light will only pass through the part to be enlarged.

To focus, the easel and lens should be moved back and forth until the desired size of image is obtained then focus sharply.

Although when using the reflector type of enlarger the image can be centered on the easel by lowering or raising the lens board, this is not practical when condensers are used. Here it is necessary for the lens to remain in the axis of the condensers and the adjustment of the negative obtained by raising or lowering the print frame on the easel.

A Safety Enlarger Cap will be found a great convenience when enlarging, with its aid we can always be certain that the image is centered on the sensitive paper.

Exposure

Test strips should always be used to determine the proper time of exposure. Cut a sheet of paper into strips about two inches wide and long enough to extend diagonally across the projected image.

To make the test exposure cover up two-thirds of the paper with a piece of cardboard and expose for ten seconds, then move the cardboard and give ten more seconds exposure, now remove the cardboard and give ten more seconds. This gives a test strip with exposures of ten, twenty and thirty seconds.

The test strip should be developed for a specified time in the developer recommended for the particular paper that is being used and then fixed. If none of the exposures give the desired color and contrast, another test strip should be exposed and the correct exposure thus determined.

Development

The developer recommended for the paper that is being used will undoubtedly give the most satisfactory results. Although the writer uses Amidol a great deal, he has no pet formulas and for the general run of work invariably uses the maker's own formula.

When using Amidol Developer it is advisable to make up only what is necessary for one day's work, as Amidol in solution oxidizes rapidly.

Fixing

An acid fixing bath should be used for fixing the prints as it hardens the film and prevents the formation of blisters, which sometimes appear if a plain fixing bath is used.

Prints should be kept separated in the fixing bath and not allowed to overlap each other. If this is neglected permanency in the prints can not be expected.

Washing and Drying

After the prints are thoroughly fixed, they should be washed for about one hour in running water, keeping the prints separated.

Another way to wash the prints is to use two trays, letting them stay in each tray about five minutes and changing the water each time.

After the prints are thoroughly washed, remove them from the water, blot off the excess water and place them face down on cheese-cloth stretchers to dry.

When dry the print should be straightened, trimmed and spotted, then mounted on a suitable cardboard mount or placed in a folder.

Art and the Crafts

A Department Devoted to the Encouragement of a Closer Relationship Between Photography and the Fine Arts

Eyes and Camera in Relation to Perspective

(At a meeting some time ago of the Pictorial Group of the Royal Photographic Society, Mr. J. C. Dollman, R.W.S., gave an interesting dissertation on perspective as it concerns the painter and the photographer, and derived certain rules which he strongly recommended to portrait photographers. By courtesy of the Society we are able to reproduce his address and the diagrams accompanying it.)

Both painting and photography are at the core hindered by one and the same thing in their reach towards perfection of result. Painting is based upon a one-eyed perspective and photography upon one-eyed lens. I will deal with the older of the two professions first. Linear perspective is a very ancient matter, how ancient I suppose nobody really knows. Traces of it are found in the remains of paintings which still survive on the walls of the ruins of Herculaneum. But the first printed reference to linear perspective that I am acquainted with is in Leonardo da Vinci's treatise on painting, where he gives a page or two to the principles of it. In those days the science or art of perspective, or whatever we like to call it, was not reduced to rule and formula, but it is interesting to note that the remarks of Leonardo da Vinci on the subject, though not written down by rule nor with express directions, contain precisely the same elements which form the basis of all linear perspective books in the present day.

Leonardo da Vinci was a very great man; he was a universal genius—painter, sculptor, musician, philosopher, military and civil engineer, botanist—in fact, hardly a thing could be mentioned with which this man was not connected and in which he did not excel. He even foresaw the aeroplane of to-day, and his working drawings for the building of an aeroplane still exist, practically the same dreadful thing which has been harassing our own lives for the last ten years. He stated that directly the motive power was discovered which would drive these things, humanity would fly. I suppose that for direct foresight that is an example which cannot be excelled. He was the man first associated with linear perspective in our time, and it is quite delightful to know that he mentions the weakness in linear perspective that I am going to speak about, and which makes painting still more or less an experimental thing so far as actual truth is concerned.

To illustrate what I have to say I am going to submit a problem in perspective. It is an elementary problem—the first of an elementary book. Some years ago a painter came to me—a very clever colorist, very dexterous with the brush, but one of those men who never trouble themselves

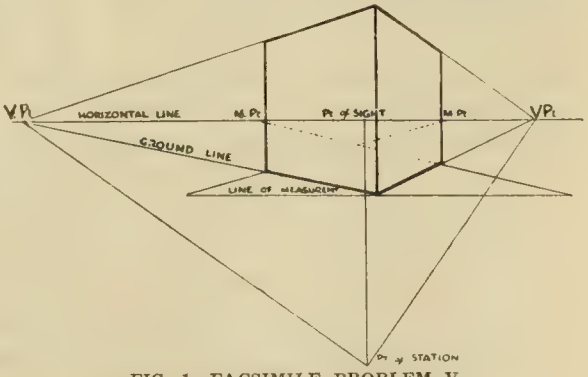


FIG. 1—FACSIMILE PROBLEM V.
Penley's Elements of Perspective

about anything, happy-go-lucky, and everything for granted—and said that he had been told that his perspective was very "rocky." Well, I got him to indicate where he supposed his horizon to be in the picture, and I found that instead of one pair of vanishing points dominating the building which formed the subject of the picture, each section of the building had a separate pair to itself. In a short time I got the thing ship-shape, whereupon he made the following characteristic comment: "Thanks, very much. It wasn't really a big bother after all, was it? There wasn't much the matter." I acquiesced, of course, and left him to it. So you see it is quite a simple thing.

Fig. 1 is a facsimile reproduction of Problem V. in Penley's "Elements of Perspective." The first thing to be done is to draw the horizontal line, which, of course, represents the horizon. The next thing is to settle upon the point of sight. A vertical line is brought from that point of sight—the point on the horizon on which the human eye naturally settles—to the station point, or point at which the spectator is standing. I would remark in passing that no book on perspective had had the temerity to speak of human "eyes' 'in the plural; it is the human "eye." The point of station is where the feet of the spectator rest, and the point of sight is the point at the horizon to which the eye is looking. The next thing to do is to draw the nearest point of the subject to which the eye is directed, which is the nearest corner of the cube, just to the right of the point of sight. From the bottom corner we draw what is called the ground line, which gives us the line of contact between the cube and the ground upon which it stands; that line is quite arbitrary in its placing. When you draw that line, you draw it to represent as nearly as possible what you think should be the correct position of the cube as it stands upon the ground. That ground line is extended until it meets the horizon, and so gives us the vanishing point on the left-hand side of the picture. This is the weak point in linear perspective, that the ground line is not the result of scientific measurements but is arbitrarily placed. Having found the vanishing point—and ordinary vanishing points are always on the horizon—we have to find the opposite one, which we do by drawing a line from the vanishing point to the point of station, and setting off at right angles to it this other line until it meets the horizon, and at the intersection we get the other required vanishing point. Having our vanishing points, we are able to rule off the lines of direction at the top and bottom of the cube on either side. The next thing is to determine what is the length of the sides of this cube seen by the spectator from his point of station; to do this we set off what is called the line of measurement, which is drawn parallel with the horizon and long enough to accommodate any measurement that may be marked upon it. As our figure is a cube having equal sides, we mark off the height of it to left and right. Now we have got the points to start the measurement from.

I hope you have been able to follow, with the aid of the diagram, this description, but it must be said that this cube in perspective of the linear perspective textbooks is a very ugly and useless thing, so far as art is concerned, at all events. How could a cube, which is 14 feet high, have such extraordinary proportions as the one shown if seen by a two-eyed vision? It is interesting to know that dear old Leonardo da Vinci recognized this weakness in linear perspective, and his advice has been followed more or less by painters ever since. He says, laconically, but very expressively, "You must double your breadth," which means that you must double the length of your vanishing points.

My next example (fig. 2) shows the cube under the two treatments of perspective measurements. The one is Penley's cube, and you see how terrible it looks now by the side of what is really the same cube with distance of the vanishing point doubled. Penley's cube would lend itself perhaps to those eccentrics who seize upon distortion and deformity and emphasize these deformities by excessive caricature, and then offer the result as a "style." That is the only use of a cube in such a perspective. The other one, of course, lends itself pictorially in a perfect manner. I do not mean to say that every cube in every pic-

ture must be treated with that perspective application, but on those lines, relative to the demands made upon it.

Now that is our trouble in painting. Our linear perspective is a one-eyed thing. No two eyes can see a cube in any position like the one in Penley's example. If they were capable of doing so, it could only be taken as an indication that an oculist must be seen at once. I do not want to dwell upon this painting question, but I think you will gather the trouble that we have to deal with. We have absolutely no scientific basis for our perspective beyond this, hence the liberties we take with it; we compromise according to the requirements of our pictures. We, in painting, are worried as you are, and the way the painter gets out of his trouble is by doubling the length of his vanishing points. This trouble may not on the face of it appear to be very important, but when you realize that the perspective of a painter's design means the structure of the whole of the scene and affects the disposition, character and sizes of the figures he reproduces, as well as the supporting background, you will realize how very vital it really is.

We will now take the photographic side. I think we all of us know perfectly well that the apparatus cannot lie—that is to say, it can tell the truth quite well if it is allowed to do so. As linear perspective is the great drawback in painting, so in photography is the wide-angled lens. The results with the wide-angled lens in photography are very similar to the results of linear perspective in painting. We get this abnormally sharp perspective, which does not admit of being used for art purposes at all, except by the eccentric. The wide-angled lens, from the art point of view, should be entirely ignored. I know it has its uses, and that there are occasions when only the wide-angled lens can give a photographic result at all, in contracted positions and so forth. The wide-angled lens, like the good, serviceable creature that it is, records what is before it. But that has little to do with art. There it is unsuccessful.

One naturally turns from the wide-angled lens to the telephoto lens, which is exactly at the other end of the "stick." It is no more true for art purposes than the wide-angled lens, though, like the wide-angled lens, it has its uses, and an extremely wonderful thing it is in the taking of distant objects which cannot be taken by any other means. But it has nothing to do with art. The proper lens for a man to use who wishes to get the best out of his subject and to make it resemble as closely as possible what the human being sees with his two eyes is a moderately long focus lens which will correspond as nearly as possible in results to the human vision. The wide-angled lens is doing, and has been doing for years, an immense amount of harm. The millions of small cameras by means of which young people and children amuse themselves and contribute to the film trade are nearly all fitted with these wide-angled lenses, on account of their rapidity, so that a result of some kind can be got in almost any kind of light. Not long ago I saw a photograph which had obtained a prize from some commercial house; it was of a horse galloping towards you, its head was longer than its withers, and the shape of the animal entirely was the shape of a tadpole.

That is the sort of thing which is doing a very great deal of harm. It is surprising how much we learn and absorb through association. Whatever we associate with, the ugly or the beautiful, we get so tuned up to it that at least we think it right and everything else wrong. I remember seeing at one place where I was staying a picture of a man with a glass of beer on the table in front of him, and at first I wondered how I could tolerate it; but I stayed on, and in three or four days I discovered that the thing was ceasing to shock me, and ceasing at length to trouble me, and soon, standing in front of it, I began to wish that I could do something as good. That

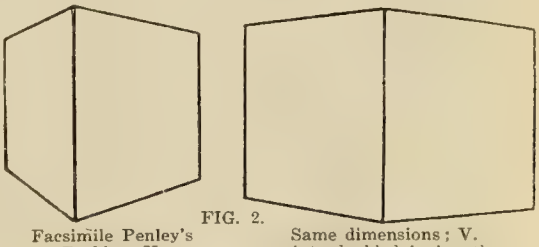


FIG. 2.

Facsimile Penley's Problem V. ____ Same dimensions; V. points doubled in length.

is the result of association. I would not have an ill-looking cat in my house if I could help it. We should surround ourselves with the most interesting and beautiful things our means can procure. These dreadful wide-angled lenses, with their distorted results, create a standard which is not only extremely ugly but utterly false.

I come to the subject about which I was hoping to have spoken to you the last time I was here. Some years ago I called attention to the matter in a lecture I gave at the Society of Arts; but then it was only by description, I had no chart. I show now (fig. 3) a bird's-eye view of what is intended to be a photographic studio. It indicates the head of the sitter, also the whereabouts of the photographer and his camera, and there is a scale to show distances. This is a perfectly reliable chart, done to measure, and I drew it upon the ground in front of the subject. The two dots in the middle of the chart on the outside lines represent the human eyes; they are the eyes of the photographer who is looking at the sitter. Now, a photographer looking at his sitter with his two eyes on those lines gets a perfectly agreeable picture, but the camera with its one eye gets something altogether different. For the photographer to obtain in his camera the view which he sees here, he must take back his camera to the apex of the cone of rays which passes from the subject through his eyes. It must be taken back to where the lens is indicated in the diagram.

Wide-angle results in taking landscape are not a matter of so much importance, but in portraiture the estimation of proportion is an element of first consideration and must be attended to. We have often heard people say of the portrait of a friend, "Yes, each feature is true, and yet, somehow, it is not like him." The reason why it is not like him is because the proportions of the features in relation to each other and the face are not true. The painter who is about to paint a portrait spends a great deal of time and attention in arranging the features in the initial stages of his work, and gives more attention, indeed, to this matter of proportion than to any other single detail. Of late years in photographic portraiture there has been a demand for large heads. The correct thing to do for the production of a large head is to take a negative at the proper distance and then enlarge from it to the size required. There may be more or less objection to enlargement. I believe there is; it is not regarded as being so fine as the direct result; but surely an enlarged negative might be made and a direct print

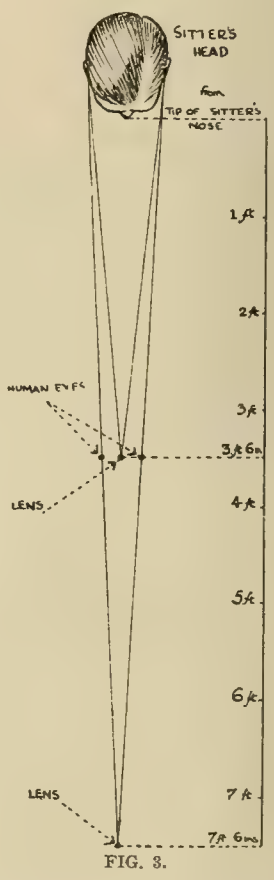


FIG. 3.

taken from it. The first consideration should be, not the quality of the print, but the likeness, and if this likenss is to be obtained, the camera must be taken back until it gets the same aspect of the sitter as the observer does with his two eyes further in towards the sitter.

In my fourth figure we have the result of photographs of the same head at 3 feet 6 inches and at 7 feet 6 inches distance. I used a bust for this purpose, and it shows a man with normal features, having no

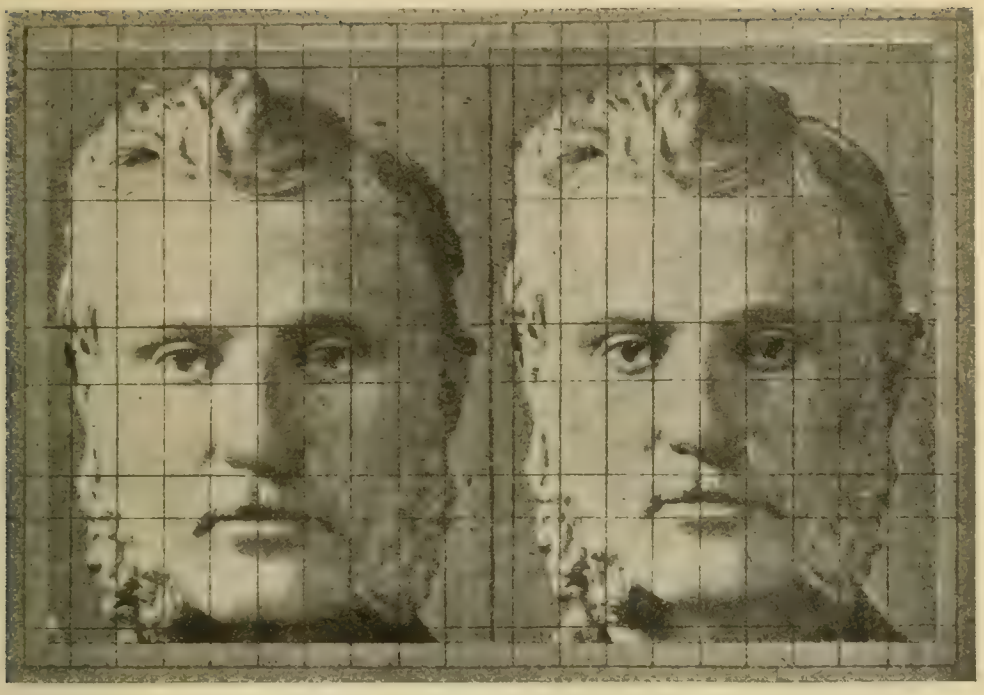


FIG. 4.

Taken at 3 feet 6 inches. Taken at 7 feet 6 inches.
Measure of ear to ear identical.

peculiarity of features which would make for distortion. The camera was placed at right angles to the front of the stand—a low stand—on which the bust stood, making the head about the height of a person when seated in a chair. The whole of the photographic operations remained entirely unaltered in the two exposures, save for observing the necessary distances of the camera; and from the two negatives showing the subject in different sizes bromide enlargements were made, and the two heads made to correspond in size so that they could be placed side by side and compared as in this illustration. The head, which is taken at 7 feet 6 inches, may be said to be either a one-eyed thing or a two-eyed thing, for the reason that it is taken with a one-eyed lens at a focal length which makes it correspond with the image obtained by the human eyes at the closer length of 3 feet 6 inches. That, I maintain, is the way in which heads should be produced.

(Mr. Dollman here compared the two portraits, by means of the lines drawn across each of them to show that there had been distortion with the one taken at 3 feet 6 inches distance. The distortion was not so marked in the upper portion of the face, but below the brow distortion asserted itself markedly; the nose was considerably altered, also the line which set off the mouth, and the line marking the edge of the chin showed an enormous difference. This was precisely what made so many direct heads unsuccessful portraits. At first sight they looked quite good, but when the owners of them got used to them they did not find them quite so happy as they had imagined. They could never tell what was the matter, but they were vaguely dissatisfied. The fact was that the features were out of proportion, and a proper portrait could not result.)

Mr. Dollman continued: You may think I am splitting hairs, but these are really very important matters to those who have sincere work at heart. My remarks are not addressed to the "there, or thereabouts" man. His successes will be read in the pages of his ledgers, and he is not

concerned with the thing from an art point of view. Here we want to get the best we can and do our best to get it. My remarks are addressed to the student who is not only appreciative of the delicacy and subtlety of nature, but is bringing the whole of his abilities to bear upon the investment of his work with those of qualities which charmed him so much in the original. This (nearer) view would never satisfy such a man.

Photographers are really throwing away a very big chance in connection with this point. A properly taken portrait negative at a reasonable focal length, to get a true register of the sitter's features, will produce such an accurate result in the sheer proportion of feature in portraiture that no draughtsman could hope to rival it. If photographers would only realize that, it would be an immensely strong thing for them. Nothing can vie with the wonderful truth of photography in recording the object before it; but the photographer can only show what art he has in himself by his work in connection with what lies before the lens. That is where, I believe, the future of photography lies. One would imagine that the wonderful inventions in connection with photographic apparatus and printing presses had long ago been brought to perfection; certainly they have so far as the expression of art is concerned, and the choice of a particular printing process will not help matters at all from this point of view; the success of photography lies in dealing with what is before the lens, not in the various devices which come subsequent to exposure. If photographers only took photographs at the proper focal length they would have done the most perfect work of which their apparatus is capable or of which their talents permit.

Of course, it would be quite possible to give more extravagant examples than the one I have shown you. I took one negative, for instance, 2 feet from the bust; I do not like to show you the result. One could even go closer still and deprive the sitter of his ears, and still closer and see nothing but the nose. The same principle obtains all the way through. I spoke about the doubling of our vanishing points in painting as a compromise to enable us to meet our particular trouble, and I wanted to point out that there is a similar condition of things in photography, which is to be met by doubling the focal length. There is something in that which appeals to me very much. It seems almost like the assistance of the missing eye, and I have no doubt that if it could be thought out scientifically it would prove to be that. But the thing is so intangible that it seems impossible to work it out. All we can do is to compromise, but photographers have got this resource: that they can retire with their camera to the proper focal length to obtain the view which they got personally at the nearer point. When dealing with subjects which are close to you and appear pleasing, always remember that you are looking at them with two eyes, but that your camera from that position will see them from only one. The most extravagant examples of this kind of thing are to be seen in film work, in those leviathan heads, or, rather, faces, representing "movie" queens, to which the public is treated in the most acute moments of "sob-stuff" drama. I cannot believe that the managers desire to insinuate by the exhibition of these big faces that the ladies have no skulls, but that is the impression which the thing makes. They are simply great faces, and that, again, is the sort of educational standard which is accepted by thousands daily.

I hope I have not depressed you this evening with this view of our two professions. It is a true view. I think the most we can do is to go on in the future as we have done up to the present, but the photographer must keep his camera well back and the painter must double the length of his vanishing points, because they both work with one-eyed instruments. Of course, if we had naturally only one eye things would be all right, but we have got to accept the position. Have you ever tried looking at objects with one eye only? It is the most interesting thing to do. Close one eye and look at a group of objects for some seconds, and then quite gently open the other eye; as you do so you will see the group absolutely jump at

you in stereoscopic relief. The word "stereoscope" recalls to me the fact that the combined pictures of the stereoscopic camera are beyond doubt exactly the same in result as the human vision gives. The lenses are the same distance apart, and the combination of the two pictures takes place when the result is seen in the stereoscope. In looking at a scene each eye has its separate picture, and these are confused or combined before they are passed by the optic nerve to the brain. That I regard as the truest rendering of nature in either art, and absolutely to be depended upon. There are some mysterious powers in connection with the stereoscope. I have tried to think them out, but have been quite unsuccessful in doing so. I have looked recently at stereoscopic slides, and remember one of a recumbent lioness in which the obliquity of perspective was such in the separate pictures as to recall Mr. Penley's cube; but with the same thing in the stereoscope I looked in vain for anything of the kind—the creature looked exactly as it looks in life without distortion.

—J. C. Dollman, R.W.S.
B. J. of P.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

FOREIGN NOTES AND NEWS

Cobalt Toning

A direct method of toning by means of cobalt salts is fully described by its discoverer, Dr. Strauss, of Berlin, in the May issue of "Photographische Rundschau." As is well known, the indirect method in which the bleached print is toned in acidified cobalt chloride solution, yields the somewhat feeble green color of a cobalto-ferrocyanide and an attempt was made to discover a direct method which would produce the intensely colored cobalto-ferricyanide. The first attempts, carried out with cobalt sulphate, ammonium oxalate and potassium ferricyanide according to a formula for copper toning, produced extremely pleasing violet-brown tones; but the toning bath rapidly deteriorated and the whites badly degraded. Ultimately it was found that the violet-brown or, under certain conditions, plum-blue color produced by the toning bath can be converted into a red-brown by means of a short treatment with dilute ammonia or bleached by reduction processes. When subjected to the oxidizing action of a solution of nitric acid, a distinct increase in depth of the color resulted, as expected, especially in the shadows. The problem of retaining the purity of the whites remained unsolved until the effect of using an alkali citrate in place of ammonium oxalate was tried several months later. In the course of a more exhaustive study of the conditions of the toning, it was discovered that a certain excess of citric acid renders the toning bath clean-working. The durability of the bath is enhanced by proper mixing and is highest when ammonium citrate is used. When the citrate of sodium or potassium is used, the color shown by the toned prints varies from violet-brown to plum-blue according to the amount of citric acid present, the blue becoming increasingly dominant with increasing acidity. On the other hand the introduction of the ammonium iron by the use of ammonium citrate or oxalate suppresses the tendency towards the blue and yields red-brown tones. However, the blueness is only transient and very shortly after drying it gives place to a very beautiful red-brown.

As already remarked, ammonia very rapidly converts the violet-brown into red-

brown, but at the same time it is very difficult to keep the whites quite clear, as they show a reddish tinge, however carefully the operations be conducted. The deposit is heavier the less the citric acid contained in the bath; but, on the other hand, the alkaline ammonium citrate solution given below works quite cleanly.

Dilute alkaline lyes change the color of the toned print more towards yellow-brown. This color is, however, not permanent, as a short washing restores the tendency to blue. Acids favor the production of the cold tones and sodium sulphide of a suitable concentration forms the brown-black cobalt sulphide, being itself decomposed in the action.

Even very prolonged washing of the fully toned (i. e., toned and oxidized) prints is without visible effect and thus, in contrast with other metal toning methods, this process may be considered as resistant towards washing. Further, so far as present experience goes, it is also stable towards light and air. The removal of the toning compound from the film cannot be effected by any method yet tried. The colors can be bleached by reduction, but are restored completely by subsequent oxidation. Consequently, there is so far no way of reducing over-toned prints, though it is possible to adjust the toning bath from the outset to suit the print to be toned so that over-toning may be avoided. The toning bath is more vigorous in its action the less citrate and the more acid it contains. Prints intended for this process should, in fact, not be developed fully, as is customary for other methods, but should show clear high-lights and shadows of a grey, not a real black, tone. Consequently this method provides a means of obtaining strong, toned prints from weak originals. If the dish be rocked, as is recommended, during the toning, the gradation will be brighter than if the dish be allowed to stand motionless. In the latter case the prints may at first be found to bleach and to give the violet color change only after long action of the bath.

The chemistry of the process may be dismissed very shortly. The red potassium ferricyanide (K3 Fe Cy6) contained in the bath forms with the cobalto-alkali-citrate a comparatively unstable, soluble complex. Where the ferricyanide in this complex or present in the bath as an excess is reduced by the silver of the image to ferrocyanide, this combines with the cobalt to form an insoluble compound, which is deposited in the film. This substance may also be presumed to be a complex of cobalto-ferrocyanide and citrate, as its color definitely distinguishes it from pure cobalto-ferrocyanide. This cobalto-ferrocyanide plays the part of an intermediate compound only, as a general rule, for with an excess of ferricyanide it forms a cobalto-ferro-ferricyanide, a compound of violet or plum-blue color representing the visible end product of the toning reaction. In potassium citrate it is more or less slightly soluble and this solubility diminishes in presence of citric acid.

It is apparent from these considerations that the toning by cobalt always involves the deposition of more cobalt than that corresponding to the silver content of the print and that, when the print appears fully toned, it will always have beneath the violet surface a certain amount of non-colored cobalto-ferrocyanide. Both of these may be converted by oxidation into cobalto-ferricyanides, but what their exact chemical composition may be is not definitely known. The maturing action evidenced by the disappearance of the blueness suggests that the compounds first concerned in the process are more unstable bodies than the cobalto-ferricyanide which is presumed to result from the maturing.

In the presence of various cobalt-iron-cyanogen compounds the print will also contain silver ferrocyanide. This can be redeveloped, fixed out or transformed into silver sulphide as desired; but these operations will, as a general rule, be left undone, since the omission involves no disadvantage. Under all circumstances the cobalt remains in the print; and, though it is deprived of its color by reducing agents, the later is restored by oxidation. The re-developed print can be toned a second time, thus doubling the amount of cobalt present. This constitutes a ready means of intensification not shown by other processes. B. J. of P.

(Continued Next Month)

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NEW MEMBERS

5298—F. A. Carey, 1223 Oak St., Columbus, Ohio.
3¼ x 4¼, 2½ x 4¼, 1⅝ x 2½ of views; for anything of general interest. Class 1.

5299—G. Hallegraeff, Hongkongstreet 5, Medan, East Coast Sumatra (Ned-India).
9 x 12 of landscape, portraiture and photos of any subject which will be actual; for the same. Class 1.

5300 J. F. Carter, Calcasieu Manufacturing Co., Inc., Elizabeth, La.
I am a chemical engineer and mechanical engineer by profession, a student for many years with the microscope, an amateur plant breeder. If those who wish to exchange with me will ask for something special which I can make, I shall be glad to make it and send to them. My machine is equipped with a Tessar series 11.b F 6.3 and I have my own special machine for microphotographic work. All my work is done on plates. Would like to have in exchange draped or undraped female figures. Class 1.

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2¼ x 3¼, 3¼ x 5½, 4 x 6 and 5 x 7 (last two double weight only) of scenics, historical and city views. For the same or anything of general interest. Have a limited number of Graf Variable 5 x 7 soft focus studies for similar work. Privilege of rejection expected and extended. No cheap work sent out. Class 1.

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Class 2.

4712—John W. G. Winkler, Hq. 3rd, att: Grp. A. S. Kelly Field, Texas.
Class 2.

4718- T. G. Duvall, Room 905 Los Angeles Ry. Building, Los Angeles, Calif.
3¼ x 4¼ and 4 x 5 of historical subjects, animals, flowers and landscapes; for the same. Class 1.

4730—A. Araiza, Box 10, San Luis Potosi, Mexico.
Class 1.

4725—W. H. Dickinson, McDonald, Kansas.
4¼ x 6½ and smaller of Iowa, Kansas and California views for mountain, lake and river scenes, also rock formations and views in the South. Class 1.

4772—W. R. Kubley, Argos, Ind.
Class 1.

4808—Dean P. Holmes, 11 West Second Street, La Junta, Colo.
Class 2.

5213—Ernest E. Chapman, 1814 Pepper St., Alhambra, Calif.
For scenes of historical interest and landscapes of mountains, sea, rivers, lakes and snow. Class 1.

CHANGE OF ADDRESS

5035—P. S. Coluni, Room 807 Air Service Office, 39 Whitehall St., New York, N. Y.
(Was 230 11th St., College Pt., N. Y.)

5296—F. M. Vigles, 270 Lincoln St., Portland, Ore.
(Was 563 4th St., Portland, Ore.)

Our Book Shelves

Stereophotography

Photo-Miniature No. 190 contains a very practical article on the advantages of present day stereoscopic photography written by Dale John Crittenberger. It handles the subject from the view point of the hand camera worker and gives useful information regarding the European and American cameras made for stereoscopic photography. Hints are given on Autochrome plates and the making of prints and transparencies is also described. We recommend this little book to all those who wish to take up stereoscopic photography.

Published by Tennant and Ward, 103 Park Avenue, New York. Price 40 cents.

Aerial Haze and its Effect on Photography from the Air

This is Monograph No. 4 from the Research Laboratory of the Eastman Kodak Company and contains very valuable information regarding photography from the air and the problems presented by aerial haze. The Monograph covers review work done during the war on aerial haze and methods of overcoming it. The series of photographs illustrates quite forcibly the improvement gained by the use of light filters in aerial work. The Monograph should be of interest to photographers who work with filters and panchromatic materials.

D. Van Nostrand Co., New York and Eastman Kodak Co. Price, $2.50.

The Penrose Process Worker's Handbook, compiled by William Gamble, F.R. P.S. Every process worker should posses a copy of this handy little pocket manual. Herein he will find not only information covering all branches of photo mechanical work, but also useful notes and many tables of weights and measures. Ready reckoners for areas of blocks and price of of blocks is thoroughly dealt with and process blocks are also given. The making of blocks is thoroughly dealt with and standard and tried formulas for wet collodion and dry plates for process work, etc., are given.

Published by Percy Lund, Humphries & Co., Ltd., 3, Amen Corner, London E. C. 4. Price 2/6 net. Post free, 2/9.

Photo-Items

Published by Herbert & Huesgen Co., 18 East 42nd Street, New York City.

This handy little folder which was discontinued during the war has been revived and will be published Every Now and Then by the above company.

In addition to notes about apparatus, etc., it gives particulars about the Photographic Contests they hold during the year and a list of the winners' names.

Expert Camera Operation Made Easy is the title of a small 32-page booklet published by Ansco Company explaining the fine points of photography so that the beginner can understand them. It is of special value to anyone contemplating the choice of a new outfit, as the technical differences between cameras of different sizes, regardless of make, are very satisfactorily presented. Focal length, stops, speeds, depth of focus and many other matters puzzling to the beginner are covered. There is a chapter of "useful pointers," and depth-of-focus tables for lenses of different focal lengths are included. This booklet goes out with all Ansco cameras of the folding type, but copies may be had from Ansco Company at five cents each.

Notes and Comment

Reported By Wm. Wolff

The San Diego dealers have formed a society under the title of the San Diego Photographers' Association with S. U. Bunnell, President; H. A. Taylor, Vice-President; Harry Leavitt, Secretary; H. R. Fitch, Treasurer. The association will meet monthly.

Called on Harold A. Taylor, Coronado. He is looking fine and as jovial as usual.

H. M. Seron, Bakersfield, very busy during holiday season.

F. C. Webb is opening a new studio in Hanford—Success.

Powell Studio, Hanford, put in some new electric equipment recently.

H. S. Carter and wife are now located in Fresno at the Hartsook Studio.

A. G. Shahbazian, Royal Studio, Fresno, reports very busy month.

Tom Shoot, Turlock, working five people during holiday rush.

Ilex Representative Visits Coast

Carl L. Oswald, the representative of the Ilex Optical Co., Rochester, N. Y., is with us on the coast at present and we of Camera Craft enjoyed his visit to us on December 5th very much. Carl has a pleasing personality and a world of information on things photographic and is ever ready to share this knowledge with anyone. He finds business good and says that this, his first visit to the coast, comes just at the right time.

The Ilex Company are featuring their latest achievements, the Ilexpo Behind-the-lens Shutter and the Paragon Anastigmat F 4.5, and Carl gave us a practical demonstration of them. More power to you boy, we like pep and enthusiasm at all times.

Thomas Harrison Died
December 4th, 1923

In the passing of "Tom" Harrison the Portrait Photographers of California have lost a real asset. Quiet and unassuming, well liked by all with whom he came in contact, his constant aim was for portraiture in the highest plane and his work was looked upon as being well worthy of emulation.

Born in Galesburg, Ill., he served his apprenticeship there and in Chicago, coming to California before the fire. He has been continually connected with the Habenicht Studio on Geary street, until his last illness made it impossible to continue his efforts in the work he loved best.

He is survived by Mrs. Harrison and two charming children. N. S.

Ansco Company to Announce New Camera

We learn that Ansco Company is shortly to announce a camera incorporating an entirely new feature. Details are lacking, but representatives of the company say that it is the biggest thing in years and of very wide appeal. The camera will sell for $75 and will be extensively advertised in 1924. Next month we expect to have full particulars for our readers.

Haloid Completes New Plant

With the completion of a new plant in Haloid street, another Rochester industry takes dominance in its field, the Haloid Company now having one of the finest plants anywhere devoted exclusively to the sensitizing of photographic papers.

This new plant more than doubles the capacity of the company for production, putting it in a position to sensitize every day a strip of paper ten miles in length and 41 inches in width—to cut this paper into different sizes from the smallest to the largest practicable for use by professional and amateur photographers the world over.

In the new plant, voted by production engineers of the industry to be the most complete of its kind, will be found every

known modern device for air-conditioning of the paper, ventilation to insure health and comfort of the workers, refrigeration for the keeping of chemicals used in making the emulsion which is automatically spread in a thin film over the paper as it passes through miles of machines. The investment for plant and equipment now represents more than $500,000.

The growth and success of the company may be better visualized when it is realized that the company started operations less than sixteen years ago in a small loft in a downtown shoe factory. Today, in volume of sales, it is the second greatest in America.

The company now maintains branches at New York, Boston, Chicago, San Francisco, Los Angeles and its products find ready sale in Scandinavia, South America, Australia, Japan and other foreign markets.

The present capitalization of the company, held entirely in Rochester, is $250,000, there being 500 shares of 7 per cent preferred and 6,000 shares of common stock at no par value. The present common stock was converted from 2,000 shares with a par value of $100 and represents a distribution of three shares of the present stock for one share of the old. In 1917 a 40 per cent stock dividend was declared and the present dividend rate on the common stock is twelve per cent per annum on the old issue.

Officers of the Haloid Company are: G. E. Mosher, President; E. C. Yauck and J. M. Walmsley, Vice-Presidents; J. R. Wilson, Secretary and Treasurer. The Board of Directors include with the above, H. E. Niles, J. C. Wilson and F. W. Zoller.

The Pittsburgh Salon

The Pittsburgh Salon of Photography is one of the largest and finest of our Annual Exhibitions and it is an honor to anyone to have their work selected and hung on its walls.

The last day for receiving prints is Monday, February Fourth, 1924, and now is the time to get busy if we wish to be represented at the Salon.

Entry Forms can be obtained from Camera Craft or from the Secretary of the Salon, P. F. Squier, 237 Avenue B, Westinghouse Plan, Pittsburgh, Pa.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

California Camera Club

It has been most gratifying to the officers to have had the full membership of the Board of Directors present at the last two meetings and the interest taken in the recent business meetings by an increasing number of the Active Members shows a renewed spirit of energy which speaks well for the future of the Club. The officers desire to thank those who are thus encouraging them and giving them renewed incentive to do greater things for the upbuilding of the Club.

Southern California Camera Club

The matter of the new building to house the Camera Club and photographic department of the Museum is the most important immediate problem. You have no doubt read about the plans, and seen the architect's sketch. A large amount of the required sum has now been raised.

And thus, with the closing of 1923, let us resolve to put our shoulders to the wheel, and do just a little more for the Club during the coming year. Co-operation is the need.

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CAMERA CRAFT

A Photographic Monthly

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.....Kodak, Australasia, Ltd., Sydney
Brazil.....Casa Stolze, Rua Direita, No. 14, Sao Paulo
China.....Squires, Bingham & Co., Shanghai
England.....Francis Collas, 16 Great New Street, Shoe Lane, London, E. C. 4.
India.....American Advertising Syndicate, Post Box 859, Fort, Bombay
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OFFICIAL MONTHLY ORGAN OF THE PHOTOGRAPHERS' ASSOCIATION OF THE PACIFIC NORTHWEST

"Brass tacks"

—and nuthin' else!

The Photographers' Association of California is not a joy-makers' club. Neither is it a fortnightly bridge club, nor an organization devoted to teaching its members the deep and mystic principles of Mah Jong. Its executives have no platform of social reform to push through the legislature at its next session, nor have they any desire to build monuments to anyone.

The Association has just one idea— to help its members make more money

Monuments and social reform are alright—in their place. Even bridge and Mah Jong are alright—also in their place. As a matter of fact, joy is alright—in ITS place.

But the program of the Association for the coming year is very seriously devoted to but one object—money making by the development of more and better photography.

The photographic market has only been scratched. The Association has laid out some very definite plans for keeping photographers busy during the slack periods and for making it easier for them to take care of more business during the rush months.

These plans include a centralized advertising bureau, under the direction of a high calibre advertising man who can work out practical ideas for creating business where there was no business before—a Question and Answer department that will give technical advice on all questions photographic—a Business Advice department that will assist members in problems of bookkeeping, indexing, office routine , etc.—an Employment Bureau that will help get the right man in the right place at the right salary at the right time—a Legislative Committee that will watch out for discriminatory legislation detrimental to photographers.

The Association can be worth hundreds of dollars to you! And yet, the cost of membership is low—a mere trifle compared with the benefits to be derived. Send the membership blank now, together with the first year's dues of $10.

A handsome Certificate of Membership, to be displayed in your office, will be forwarded to you immediately.

PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA ORGANIZED OCT. 9. 1922

Date .....19.....

I, hereby, enclose TEN DOLLARS for membership in the PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA for one year beginning October 1st, 1923.

I, hereby, agree to support the Constitution and By-Laws of the ASSOCIATION, observe its code of ethics and in every manner promote the welfare of the professional photographer.

.....

.....

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N. B.—Your dues include subscription to CAMERA CRAFT, our official organ.

PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA

703 MARKET STREET - - - SAN FRANCISCO, CALIFORNIA

Oo—I WOULD LIKE IT!

By MISS PEGGY STEWART
Canandaigua, N. Y.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI FEBRUARY, 1924 No. 2

Address and Demonstration Given at the 1923 P. A. of A. Convention

By Peggy Stewart

With Illustrations by the Author

Mr. President and Members of the Photographers' Association of America: I am going to make some pictures of children. The spotlight is one of the things with which I get my effects on the background. I will just say a few words in reference to pictures.

I wonder if people know what a photograph is and what the value of it is to people, and what the price is? Now to me, I think of a photograph as an expression of something. If you go to a foreign country you can not understand their language nor many of their ways. But if they show you a picture you can understand it. And I think that you can make your pictures in that way, so the people understand the person. Bring out the character of that person.

I was speaking to one of the women the other night about using people's hands in the pictures: and I said that I had a reputation of working with children. Well, I work with children from infancy up to the age of twenty, and from twenty to forty I am not terribly interested in people, but after forty I think they are again interesting, the same as they are when they are children. The reason for that is that in that period, from twenty to forty, I think their characters are really forming, they are working out their salvation. Their faces do not really register their thoughts until they are forty; then the lines are set and you know what they are. When they are children they are in expectancy; they are looking into the future. Another reason is that I like to work in the morning, and I think of children in that way, as light, airy things: that's one reason I want to work in the morning. I love the light and I got my idea of light from seeing light on trees. Watch a tree when the sun is not there, just a dull maze and suddenly the sun comes out and filters through all the leaves,—they stand out. If you have seen my pictures, you will know that

OUR SUNSHINE GIRL

By PEGGY STEWART

is the way they look, or at least I try to have them that way. You can put your hand behind them and feel the atmosphere and feel that they are in front of and not against the background.

I have a couple of little babies here, and I will try to photograph them. (Applause as the little girl of about three or four comes to platform.) Miss Stewart proceeded to pose the little girl.

The photograph I am working for is to get the light on my background. I work with a small screen and use a background that is not strictly white. It is almost green. It's a light green and it gives me a very pretty effect. Then I have my spot light touch my child, and go back on the background, —that gives you atmosphere.

OUR LITTLEST ONE

By PEGGY STEWART

If you will notice, I keep my child quite a distance from my background, and let the light come in behind.

I think we should be very particular to keep the back of the subject straight,—even grown-ups, because if they slump, they spoil the neck.

I do not know whether anyone has a ball like this or not; this ball has a ship inside. But this is the most wonderful thing for a child. It represents perpetual motion, and the children will play with it for hours. Even the grown-ups like to play with it.

One of the things I keep on my camera all the time is a comb. I can

not make a good picture of a child with its hair curled this way. (Indicating, then combs out child's hair.) See what a difference that makes?

Now here is another thing: I don't know whether you realize how much hands mean in a picture. I think sometimes the hand shows more character than the face does. Now, I wonder if anybody would ever think of making a picture of Pirie MacDonald without his hands. I wouldn't, because to me—I don't think of him without his using his hands. Another man is Mr. Beach. And I always think of that. Now I just photographed a little girl recently and her hands were the most important part of it. No matter what you gave her, she immediately took it and looked at it.

When this child came in, someone said she would not make a good model because she had her mouth open all the time. But you will notice since she has been up here she has not had her mouth open once. We did not tell her to close it. She just did it.

Here is another one of my toys. (Indicating mirror.) I don't know whether it came from the ten cent store or not; but I have a lot of fun with this. When I get a child who is restless and rather afraid of me, I take my child and try to interest him and if I can not do anything with him, I have this on the camera. After I have tried other things, I will pick this up and be looking at it. The child will look at me, then I will snap him when he doesn't know it. Sometimes a child is nervous and this helps quite a bit.

If you keep absolutely quiet yourself, you can do anything with children; but if you dance around and make them nervous, you lose control of them. A child is the keenest thing, because they can tell, they can read you quicker than an older person can and know just about how far they can go with you; once they get too familiar, you can't do anything.

(A young lady subject now took the child's place on the platform.)

Listen, we do not use the same comb on everybody. We have about six and soak them in naphtha powder and water every once in a while. So you see we are perfectly sanitary, (Laughter.)

Now here is another thing: I make them sit down and put their feet on the floor, their backs straight, because, once again, that is where you get your pretty neck. I don't care how pretty a face is, a girl who doesn't have a nice neck is spoiled as to balance. I do not run a beauty parlor, but I think there isn't anybody who can not have a pretty neck if they hold themselves up, and do not lounge.

If I were working at home, I would put this light down low and throw it up through the hair onto the back-ground. I use a lot of silver paper. By getting your light on the background, you get your atmosphere.

(Second little girl model on platform.)

That is artificial lighting. The sun never does that! (Laughter.)

You will note how the light coming through there separates the hair.

(Applause greeted Miss Stewart as she concluded her demonstration.)

THE PICTURE HAT

By PEGGY STEWART

PEGGY STEWART

By CHARLES AYLETT
Toronto

Miss Peggy Stewart is a Toronto girl and the granddaughter of Dr. W. A. Stewart, who was for some years in the Toronto Observatory. She is a delightful red-haired young person, with the true artist's sympathy and quick sensitiveness. She set out early in her career to be an illustrator, but discovered in photography a final and satisfying means of self-expression. And she has made a sensational success of her profession.

Photography, it would seem, is not so much a commercial as a social art.

"The whole secret," she said, "is rescuing people from their self-consciousness. Keep the camera in the background, and then, when they have forgotten all about it and have become interested in something else, take the picture."

It is in her studies of children that Miss Stewart has made her greatest success.

Camera is Forgotten—"I don't let their parents even speak of picture-making when they come into the studio," she said. "We talk about everything else and I tell them stories and the camera is completely forgotten."

TORONTO STAR.

Art Problems in Photography

Specially Written for Camera Craft

By Dr. Erwin Quedenfeldt
Translated by Dr. Ingo Hackh

I. The Carbon Print with Colloidal Pigments

The birth of photography happened at a time of realistic art conception and accordingly developed along these tendencies. It was necessary to represent nature in its external aspect and to represent the dimension of things by light and shadow in many nuances. Thus it was a conquest of the world by recording objects in their accurate light values. No wonder, therefore, that this goal of photography was reached by purely technical means during a period of intensive discoveries in technical and industrial appliances. The camera became a machine with which to determine the finest shades of light and record the form of objects rapidly and accurately.

Daguerre, the inventor of this machine, already looked upon his invention as an industrial one and exploited it as such, nevertheless, he was an artist by profession. Since then, photography has become more and more standardized by the introduction of machine-made plates, papers, etc., and is on the whole a rigid and smooth process which enables the manufacturer to say: "Press the button—we take care of the rest." Most of the amateurs are enmeshed by this method and consider only the photography that this great industry produces.

There exists, however, a small group of artist-photographers, but even among these, there are many who are satisfied with the ready-made materials of expression and are not anxious to find means of expression more in harmony with the changed artistic tendencies. There is no doubt that realism and naturalism have departed from contemporary fine arts and that for many years a more spiritual conception prevails. If photography is a real art, it should have long ago branched out in this new direction. It is not a good sign for the perfected general photography that it has not been emancipated from the naturalistic conception.

Photography has not its own esthetic rules, but is, as every other human endeavor, subject to the general mood of the human soul. Man has evolved for himself a new picture of the universe, as is evidenced in the changes and progress made in all fields of human knowledge, be it modern science, philosophy, religion, or politics. The human soul has left the mere external appearances of natural phenomena and has entered a more abstract realm. The impressionists, for instance, have dissolved the objects in light and have gone so far as to disregard the single objects entirely and submerge them as the carriers of the fluting and piquantly dashing spots of light. Photography has partly followed this conception

in its latest achievement of form. This is found in the pictures of American artists, (Steichen, White and others), and in those of some English artists. These pictures, saturated with light and penetrated by mist, air, and haze, were at first not well received on the European continent, but they slowly gained recognition. Continental Europe is still in the clutches of naturalism and prefers the plastic appearance of objects to the pure light problems.

But it is desirable that photography adapt itself to the new artistic tendencies and that art photography even surpass the impressionistic conception. I will attempt in these articles to indicate the means by which this can be accomplished. It has never happened in the history and development of art that a newly discovered means produced a change in the artistic tendencies, while, on the other hand, the prevailing artistic conception is being expressed by the available means. For example: The recently perfected oil, bromoil, and oleum print have not produced the slightest change in photographic form conception. It was utilized for the same naturalistic tendencies and likewise used by the impressionistic school of expression. The technique, or the material alone, can never develop a new tendency of artistic expression—this can only arise from a desire in the human soul to express a new conception of the universe. Then only comes to Man new means of representation or he invents new techniques adapted to his new views.

This period of change is characterized by a departure from nature in its external appearances. Single objects were analyzed to the smallest particles, and scattered to infinitesimal corpuscles. In this process the relation to the whole was lost. Now begins again the synthesis in which the human mind tries to recombine the scattered particles into the whole. This expresses itself in science as well as in art. Einstein's law of relativity has for its purpose the recombining of numerous data in a single structure of laws governing the universe. In Art this recombining of the objects takes the form of intensified lines,—a contour which binds the objects together and neglects the details. The generalities are accentuated, the typical pronounced, and the particularities are subdued. Such pictures represent the law and generality of nature, behind which the mental eye sees the particular. By such a desire of abstraction the objects are represented in line and mass only,—emancipated from light, space, and placed upon a plane, light-less and shadow-less, and without connection to the natural space.

The pioneers of this new art were mainly Cezanne, Hodler, and Van Gogh. Cezanne endeavored in numerous sketches of apples to find the general mental conception of that object. Not a particular apple with all its accidental surface appearance such as color lines and wrinkles,—but a GENERAL form characteristic of all apples. He introduced the cubus and became the founder of cubism. Hodler generalized the types ot Man and attempted to represent his figures in strong contours in relief like fashion, accentuated by repetition, the eurythmy. In this way he suc-

INTERIOR OF ROSALIND A. KEMP'S HOME—MILLS COLLEGE

By H. S. LAWTON
San Francisco

DATA—5x7 View Camera fitted with 6½-inch focus Goerz Dagor Lens, f6.8. The exposure was one second at stop f16. on Eastman Super Speed Film. The film was developed with Metol Hydrochinon in a tray.

ceeded in producing general properties of human expressions and character. Van Gogh, finally, influenced by the Japanese wood cuts, liberated himself from this impressionistic conception by strong accentuation of lines.

The influence of oriental art upon European modern art was at first very large, as in the earlier period of impressionism the products of Old China and Old Japan furnished many models. It was then not extraordinary that impressionism inclined very strongly to the decorative type. Especially, since 1895, the impetus to handicraft gained momentum, in England through John Ruskin and William Morris and others,—a school which likewise flourished in Germany. The result was the domination of decorative lines and a plain massive ground.

This whole movement in the world of art had, on artistic photography, practically no recognizable effect. The photographic artists are still in the period of impressionism which existed before 1895. Since 1903 I have worked on the introduction of the decorative form into photography,—a goal toward which the Brothers Hoffmeister in Hamburg are working by means of large carbon prints in multiple colors. Their pictures in large massive color attempt to represent the object in large simple outlines. They impressed me strongly and stimulated me to similar work.

To obtain transparency in my carbon prints was my endeavor, and accordingly I began colloidal research. It is known that colloidal substances, such as glue, acacia, gelatine, gum, etc., do not permit the diffusion of substances larger than a molecule. The largest molecular particle has a diameter of one-millionth of a millimeter. All true solutions of salts in water contain such molecular particles. Above this size-limit comes a group of substances which form colloidal solutions in which the particles in size range from one hundred-thousandth to one-thousandth of a millimeter. Such colloidal solutions or suspensions have not the power to diffuse into other colloids such as glue, gelatine, or gum,—hence; they would not color these substances and could be utilized in the carbon print, as the lights would remain pure and the paper would not be stained. The lazure colors in molecular solutions do not produce this result, as they diffuse and stain the paper.

Experiments show that in the colloidal realm the color intensity is the greatest. The tempera colors contain larger particles and this explains their greater covering capacity. The colloidal pigment should then be of good transparency and yet of good color intensity. Starting with these considerations, I began to look for suitable pigments and finally found them in the easily obtainable drawing inks of which several brands are commercially available. All these inks are colloidal solutions and can be recognized as such by the fact that they do not diffuse into gelatine and that they precipitate as a flocculated geil on the addition of a few drops of water.

Such drawing inks, including the black, are a good pigment for the

HOME PORTRAIT

By H. U. KNIGHT
Victoria, B. C.

Awarded first prize in the Home Portrait Class at the Victoria Convention of the Photographers' Association of the Pacific Northwest.

carbon print. They are readily applied by placing the gum acacia solution 1:3 in a small cup and adding a few drops of the drawing ink,—(one can observe the flocculation),—and with the brush the liquid is equally and uniformly mixed. Next we test the color intensity by brushing a little upon newspaper. The color will be sufficient for shadows if the type of the newspaper practically disappears; for half tones the letters should be still visible. After the right concentration of the pigment has been obtained in this way the necessary ammonium bichromate solution is added. On account of its yellow color this will materially alter the shade of the solution. I take for shadows or dark prints for each 10 cc (1/3 ounce) of gum acacia solution 5 cc (1/6 ounce) of a 20% ammonium bichromate solution; for medium shades or half tone prints 10 cc (1/3 ounce) of ammonium bichromate, and for light prints 10-15 cc (1/3 to ½ ounce) of ammonium bichromate solution. With the combined solutions the paper is prepared in the usual way. The copy-period can be reduced, owing to the transparency of the pigment. For three-color prints these inks produce not only an intense color, but also excellent transparency and good mixed shades.

The great advantage of these colloidal pigments is their suitability for the new purpose: the production of delicately or strongly colored massive prints, which by superimposing can be constructed into decorative prints. We obtain this result by under-developing the single prints. An example will best illustrate this:—

We first make a print for the shadows of the picture. This print, after the exposure, is developed so that all lights and half tones have disappeared, but the details of the shadow have not appeared, in other words, that the entire shadow appears as a dark uniform ground. Over this we place the medium shades and develop to the disappearance of the lights, so that the entire medium shades appear as a uniform, but lighter, massive print, which is accentuated by a lighter pigment or a different color than the shadows. These two prints may produce a finished picture. Especially beautiful for landscapes are brown or ocher half tones on dark brown or greenish black shadows. It is likewise possible to start with the half tones and impose upon it the shadows, but one is inclined in this case to over-develop the half tones. It requires some experience to determine where the lights end and the half tones begin and to stop the development at the right point. If it is desired to print the lights in another color, one has only to transfer a delicate color print, exposed without negative, and washed only until the chromate has disappeared.

The development of the single prints is, as a rule, somewhat slower as it seems that the drawing inks contain some tannin or tannic acid in order to make them waterproof. This tannin hardens the gelatin somewhat and hence the development of the picture is slower. The drawing inks can be obtained in many colors, many of them can be mixed to produce all kinds of shades and nuances, but unfortunately, not all of them are entirely sun-proof. If exposed to full sunlight for a few weeks they will fade, but no one does that with color pictures. I have noticed no appreciable discoloration of some prints that have hung in a room over ten years. I feel confident that the labor spent in producing such pictures will be richly rewarded in the joy of the finished product.

FORTHCOMING EXHIBITIONS, 1924

March, 1924—The Fifth Annual Salon of Photography, under the auspices of the Buffalo Camera Club. Last day for receiving prints, February 1st, 1924. Particulars from the Secretary, Lester F. Davis, 463 Elmwood Ave., Buffalo, N. Y.

March, 1924—Pittsburgh Salon. Last day for receiving prints, Monday, February 4th, 1924. Particulars from P. F. Squier, 237 Avenue B., Westinghouse Plan, East Pittsburgh, Pa.

April-May, 1924—Australian Salon. Last day for receiving prints, March 18th, 1924. Particulars from the Secretary, Australian Salon of Photography, Box 298 G. P. O., Sydney, N. S. W. Australia.

April-May, 1924—Annual Exhibition—Hammersmith Hampshire House Photographic Society. Last day for receiving entries, Friday, 11th of April, 1924. Particulars from D. H. Wilkinson, Hon. Exhibition Secretary, 2, Drayton Road, West Ealing, London, W. 13.

V. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from January Issue)

CHAUNCEY M'GOVERN

Negatives made wherein the original writing is the SAME SIZE as the original—or smaller than the original—I speak of as "Foto-GRAFIC" in contradistinction,—while negatives made by the "mirror" process' without plates or films, I speak of as "Foto-STATIC" in these articles and in my official testimonies in the various Courts.

Sensitized Papers for Documentary Illustrations:

The first and last object of the handwriting expert being—illustrationally—to have contact prints and enlargements that will show the **finest detail,** he must use the best kind of fotografic paper for both kinds of illustrations. Many a time I have seen handwriting experts SMOTHER UP the fine points that COULD have been brought out in favor of their clients, through their use of paper that was employed mainly because it happened to be "handiest" in the darkroom when the operator was ready to make the contact prints or enlargements. In my experience I have found it always pays to use the best fotografic papers. In the laboratory of the handwriting experts it is much cheaper, in the long run, to always keep on hand a supply of the various kinds and grades of paper, for both contact prints and bromide enlargements—even if it does tie up a little more cash, and even if some of the paper will get "bad" when kept too long on the shelves of the darkroom. After years of experience, I confine myself to "stocking" Velox paper, in half-gross boxes, of "Regular," "Special" and "Contrast" grades, for contact prints; with "P. M. C. No. 10, double weight," in size 16 x 20 inches, and 10 yards by 40 inches, for bromide enlargements.

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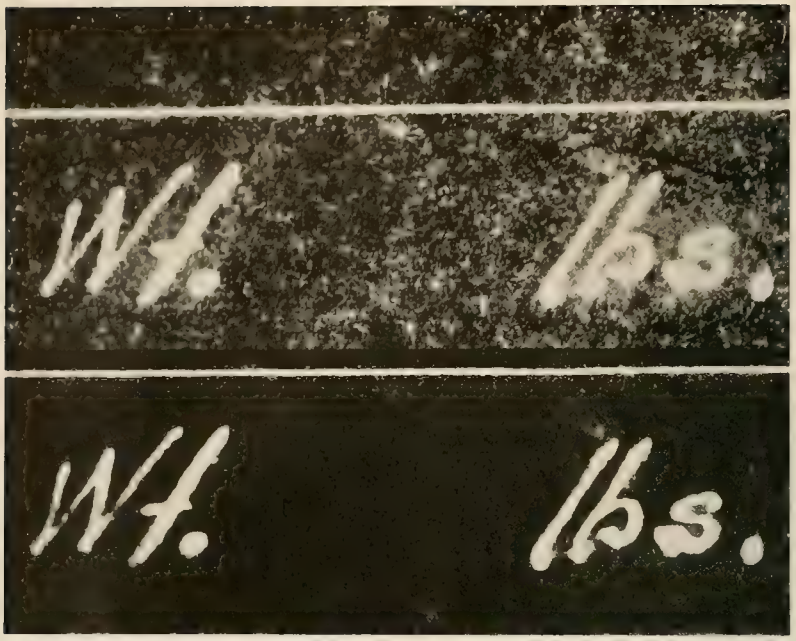


No. 6—TO PROVE that NO alterations, erasures, etc., were made in BLUE-PRINT between the words "Wt." and "lbs.", as claimed by one side, who insisted that the blue-print had once contained the figures "65" in that spot and had been "scratched out;" To the contact print of the TRANSMITTED light Foto-MICROGRAFIC negative is added a contact print of a Foto-MICROGRAFIC negative made by same apparatus by OBLIQUE light,—for comparison by reader . . . TRANSMITTED light print,—80 minutes' exposure; "F" filter; 12-inch II-B Tessar 6.3 lens; 32 stop; Panchromatic Process Plate; the OBLIQUE print being made under same conditions, etc., EXCEPT by FRONT, OBLIQUE lighting of 15 minutes' exposure.

All my contact prints are backed with white linen, bought in rolls of 40 yards—one side of the linen being gummed by the manufacturers. As each print is ferrotyped, the linen (cut to 12 x 15 inches, plus a "hinge") is placed on the back of the prints and squeegeed at the same time as the print. Enlargements on double weight paper I do not "back,"—merely ferrotyping them on either tin or plate glass, according to size, and convenience of the laboratory facilities at the time of making the prints or enlargements.

Ferrotyping on Tins or Glass:

Because I have demonstrated that a better effect is secured on judges and juries by highly polished prints and enlargements—simply because the polishing brings out the littlest details—I always insist on time and trouble being taken to ferrotype both contact prints and enlargements. Each time the tins are used they should be carefully cleaned and rubbed thoroly dry with benzine (drug-store "gasoline"). If the prints stick (or fail to peel off easily) after the paper itself is dry, the tins need a copious application of "Ferrotype lubricant," which is put up by the Eastman people, or some other such substance. Altho the largest "tins" catalogued are only 18 x 24, I order them 24 x 36 inches without difficulty. When glass is used for ferrotyping (as is the case when I make enlargements

6 feet high by 40 inches wide), it is wise to put the WASHED (after FIXT) enlargements into a bath of Formaldehyd, 10% solution, for five minutes. If the paper still sticks to the glass, polish the glass with "French Chalk," wrapped in cheese cloth.

Rubber Wheels (Casters) on Camera Stand:

Finding it most convenient in my own laboratory to use for "bromide enlarging" a 11 x 14 camera separate from the one used for "copying," and to keep the "bromide enlarging" camera in a different room than the one where the "copying" camera is operated, it was cumbersome to get along with only one set of mercury lamps for both copying and enlarging. The set I now use—PU Cooper Hewitt—represents an investment, with installation, etc., of some $500. Hence the advisability of some means of easy and rapid "adaptation." Accordingly, the "stand" on which the copying camera is mounted has been fitted with four rubber-tired wheels, bought at a local hardware store. These are screwed to the under side of the stand on the four corners—making it necessary to simply shove the stand back or forward gently, whenever it is in a place desired for something else.

Special Stand of Wood for Enlarging Lamps:

The stands for the large PU-tubes, Cooper-Hewitt, regularly furnished by the manufacturer, are used by me for "copying" work to my complete satisfaction. But they are so cumbersome to move and handle, when it comes to the use of the same two lamps for "bromide enlarging" work, that I had a carpenter make for me a small table, 22 inches high, 24 inches long and 6 inches wide, on one edge of which is a strip of wood one-half inch thick and one inch wide, nailed lengthwise of the table—that edge of the table nearest the hole in the partition to the other side of which is FASTENED the "bromide enlarging" camera. Six inches from either end of the strip are placed turn-screws.

(Continued Next Month)

Editor's Explanatory Note:—Numerous letters of inquiry have been received from such distant places as: Berlin, Germany (with postage stamps affixed to the value of MILLIONS of marks); Liverpool, England; Glasgow, Scotland; Cairo, Egypt; Bombay, India; Sydney, Australia; Manila, Philippines; as well as from small towns in the United States,—signed by both professional and amateur photographers—highly commending the value to them of the series of articles now being published in CAMERA CRAFT from the pen of Handwriting Expert Chauncey M'Govern on the remarkable manner in which the science of photography can be brought into play to unravel mysteries of documents in dispute

(forgery). Many of these letters ask for additional information on various points, although some apologize for asking, on the ground that perhaps Expert M'Govern does not care to "give away trade secrets".

In reply to this most general question, Mr. M'Govern advises the editors that the only reason why he does not go into greater detail on various points is the desire to save space. He is broad minded enough to give the world the full benefit of his personal experiences and discoveries. Any reader who writes for additional facts will be furnished the data gladly and free of all charge. Kindly enclose a self addressed stamped envelope.

A specimen letter of the many received is that from Messrs. Stewart Bale, "Architectural, Commercial and Shipping Photographers" of 53 Lord Street, Liverpool, England, and is as follows:

Camera Craft,
San Francisco, California, U.S.A.
Dear Sirs:

We have been exceedingly interested in reading the articles on the "photographic methods in forgery detection" by Mr. Chauncey M'Govern.

We note that he uses, and strongly recommends, 11x14 Folmer & Schwing camera, taking films size 11x14. The use of this large size film **puzzles us to know how he gets them to lie perfectly flat**, as, though our standard size is only 12x10, we have found it impossible to use the Kodak standard cut film. It will not lie flat and, of course, is therefore hopeless for ARCHITECTURAL subjects.

Would it be troubling you too much to hand this letter to Mr. M'Govern and ask him to be good enough to tell us what make of films, size and thickness, he uses. We appreciate all he says as to the advantages of films, but so far have found them impracticable in any ordinary darkslide.

Thanking you in anticipation, with compliments,

Yours faithfully,
STEWART BALE.

P.S.—Would you also please ask Messrs. Folmer & Schwing to send us a catalogue of their apparatus?

The reply of Expert M'Govern is this: The necessity for the film to lie POSITIVELY flat (and not bulging even a fraction of an inch) in making negatives of WRITING, where a single letter is sometimes taken on a film 11x14 inches (occupying the most of the space), is much greater than the necessity for flat-lying required for architectural work. Most of my negatives are made on ordinary Eastman's Commercial Panchromatic Films and Eastman's ordinary Commercial Process Films, both 11 x 14 inches. I have never yet had a film which bulged to any degree. The stop I use is usually F 32 even on a 48-mm Micro-Tessar lens. Perhaps one reason for the lack of trouble with bulging films is the fact that I use for the films not the old-fashioned plate-holders fitted with makeshift film catches. For plates (glass) I use the regular Sterling **Plate**-holders, while for films (celluloid) I use the Sterling **Film**-holders. These are manufactured by the Eastman Kodak Company, to be used for films only and are not interchangeable for use with regular glass plates. I have seen operators who used make-shifts to put in regular glass plate-holders to take a film, but it is poor economy of time, and money too, as well as giving indifferent results. As to relative quality of film and glass negatives, even in my most exacting work the film has proven itself unsurpassable. And as to its non-halation and orthochromatic features, they are now too generally recognized to need any further commendation from me.

(TOP) AN INDIAN AND HIS PET SKUNK—A HEALTHY MOTHER AND A HAPPY BABY
(BOTTOM) SIXTY AND SIX—WOOD FOR THE EVENING MEAL

(Illustrative of article on page 72)

By MILDRED RING

Kodaking the Indians

By Mildred Ring

With Illustrations by the Author

To the tyro, the surrounding difficulties attending this particular branch of outdoor photography are no doubt minimized to a formula similar to this:

With thorough kodak equipment and fair assortment of Woolworth's jewelry, go to some remote spot accessible by automobile, which you have previously found marked on the map as an Indian reservation. After putting up at the local hotel, saunter forth in the cool of the morning, and, upon encountering your subjects, display said jewels, after which you may state your preference in costumes and poses. A near diamond scarf pin should result in something unusual in photographic art, perhaps a chief in war paint and feathered head-dress; while a string of red beads will certainly produce that masterpiece in genre, Indian maiden, canoe, red dress and perpendicular feather. If these articles are not effective, offer celluloid cigarette holder and brass vanity box.

Wishing neither to disparage nor discourage, still I feel it incumbent to disabuse anyone from such fallacious reasoning. A three months' kodaking experience among the Indians of the Klamath River has utterly destroyed any such illusions that I might have previously entertained. The first and last requisite to success in this line of photography, so far as the subjects are concerned, is that you have a natural love for this race of people. It is something impossible to fake, for instinctively the Indian senses your true regard for him. Therein lies the secret of his confidence in you. And without that, all the money and the gewgaws in the world cannot accomplish your purpose. I might add that other characteristics which are essential assets to this game are, tolerance, patience, perseverence and the happy faculty of adjusting one's self to any surroundings.

While friend kodak has been my one and only pal on this expedition, I have often felt that it diminished the cordiality of my welcome. However, as an incentive it has been a go-getter, even though every result has cost me,—not merely a cheap jewel,—but miles of hiking over lonely mountain trails, miles of river canoeing with riffles that made the brow drip and the heart pray, a laborious distribution of Lady Bountiful packs via shoulder and shoe leather, hours of nursing the sick and the injured under rather depressing conditions and O, just oodles and slathers of tact and attempted understanding.

Possibly a few more intimate details such as smacking my lips over burned acorn soup; playing the clown by ludicrous but sincere attempts to "guttural" their language; making a human flea trap of myself by hours of doorstep sociability amidst pet skunks, kittens, dogs and babies; squatting cross-legged indefinite periods in lung-killing smoke-houses, waiting

(TOP) SAILING UP THE KLAMATH IN A CANOE
(BOTTOM) INDIAN BOY AND HIS DUGOUT CANOE (Redwood)
By MILDRED RING

for the spirit to move my host or hostess to be kodaked; accentuating the charm of individuality by saturating myself with that bath-defying "odeur inimitable", the essence of smoked salmon; having my person pawed over and my pockets rifled for a stick of gum by smudgy but dear little youngsters; kneeling on the floor to dress a ghastly wound wherein a whole side was torn open to the internals; and contesting the right of way, although rather feebly, in a narrow trail with a black bear, might round out the impression with finer perspicuity.

It has been a grand trip, this one on the Klamath, and I've loved every minute of it, every adventure and every person I have kodaked. I can heartily recommend it to all lovers of the primitive, knowing that to

them hardship but gives a tang to adventure, and that to their discerning eyes romance lurks in every dirty hut and in every wrinkled face.

In many respects, I believe that being a woman has proven an advantage. I seem to have been regarded with less suspicion. Wishing to forestall any misunderstanding, I made my mission quite obvious from the beginning. And, notwithstanding an inherent antipathy to the kodak, I have managed to so far overcome the prejudice that a request made today to kodak an old Indian woman was met with a hearty, "Sure!" The more unusual in that old women cling strongest to racial idiosyncracies.

Incipient in the Indian's temperamental make-up is a fear of the supernatural. They live in constant fear of death. "Good medicine" is a preventative used under all conditions. An arrow is shot into a sacred tree with the accompanying wish, "I like to live long time!" A woman wears a wild currant leaf, symbol of good luck, under her basket cap as a precaution against the grim invader. In their sweat-houses, men smoke sacred Indian pipes and pray to their gods that they and their families might be granted the long-life blessing. And so on with innumerable instances of a primitive people's superstitious demonstration of the primal instinct.

Coupled with their fear of death is a fear of spirits. The dead are disposed of as quickly as possible and the mourners bark and howl their grief in order to frighten away the evil spirits.

When next you attempt to photograph an Indian, friend tourist or fellow kodak enthusiast, and he turns his back or otherwise spoils your film, bear with him tolerantly knowing this to be his belief: The picture produced is a materialization of his spiritual self which is bound to cause his death. For only in death can the spirit take form.

In many instances, as the accompanying photographs will verify, I have been able by repeated visits, repeated gifts, repeated friendly overtures and, with those mercenarily inclined, a dollar or two, to overcome this superstition. But I always respect their belief and each picture has been taken with their full consent.

The younger Indians, having accepted the ways of the white man, have been educated away from the inhibitions placed by superstition. In truth, many of them own kodaks themselves. However, their consent to be kodaked is oftentimes as difficult to obtain as that of the older Indians. This antagonistic feeling was explained to me by a Carlysle woman in this way:

"A tourist passing through hops out of his machine with his kodak and says, 'Hey, you, line up! I want to get your picture!' Then he chooses a setting and attempts to back us up against it. I wonder how kindly the white people in Los Angeles or San Francisco would take to the idea of our appearing on their streets with a kodak and demanding that they line up for their pictures. It seems that they overlook the fact entirely that we, too, are human beings."

(TOP) OLD WIDOW TOM
(BOTTOM) THREE GIRLS IN INDIAN DRESS

By MILDRED RING

Such pictures as the old woman pounding acorn flour and the woman carrying the burden basket, represent a twenty-five mile trip up the Klamath. Originally, I planned making this trip in a canoe but as my party increased in numbers we decided upon a sailing skiff. However, "big wind he never come," so we, therefore, blistered our hands rowing and poling over the rapids as far as Blue Creek where we hooked on behind a gasboat, thus completing our journey in ease to the Indian village of Wah-tek. Here, I found inspiration for prolific kodaking, but several days elapsed before I could make anything other than mental pictures. The popular prejudice was so pronounced that I all but despaired. Then I discovered an opening wedge—the promise of colored enlargements.

Of course, there have been a few disappointments. I hiked five miles up a mountain at Ah-paw, the former Chas. Willis Ward ranch, with but a single remaining exposure in my kodak to obtain a lengthened view of the Klamath canyon,—and then the film was scratched during development. But the pleasure of the hike and my remembrance of the view more than counterbalances this disappointment.

Old Widow Tom, pounding the acorn flour, is one of the oldest Indians on the river. She remembers the advent of the Wa-ge (white man), and has a fund of interesting stories of that exciting time. She bears the distinction of being a "medicine woman".

The three girls in Indian dress were participants in a brush dance. After an all night's vigil,—I needs must see everything,—I took this picture just at daylight, about six thirty, giving it a time exposure of one second with stop 32.

The picture of the boy in the canoe cost me my Ingersol watch. Thereafter I reckoned time by the sun, "Injun" fashion.

If you will observe closely you will notice that the kodak has failed to emphasize one interesting feature, the conventional hundred and eleven tattoo which adorns the chins of all the older women.

But my pictures are failures if they can not, for the most part, tell their own stories. The smattering I have given is merely to impart to you my idea of the fascination and the intricacies of this particular branch of outdoor photography.

For this work, I have used ordinary 3A and 2A Eastman kodaks. Most of my results are time exposures, ranging from a fifth of a second, stop 64, on bright days, to a minute on dark days or in the shade of the forest.

Speed Pictures

In stopping motion at high shutter speed with a reflecting-camera, considerable practice is necessary to stop that motion at the right place. Many reflecting-camera owners have failed to get good speed pictures due to ignorance or disregard of the following fact:—Remember the shutter doesn't open until the mirror is all the way up. The time elapsing between the presure of the mirror release and the opening of the shutter is approximately one-tenth of a second. Allow for it. Catching the ball in front of the players glove while it is in the air is quite a feat on the part of the photographer. The **camera** doesn't know, no matter what the price paid for it. **You** must do the thinking. Don't forget that "tenth" if you want those "in the air" pictures.

Contributed by R. L. McColm, Asbury Park, N. J.

LIGHT AND DARK CONTRASTS
(Illustrative of Article on Stereoscopy) By H. D'ARCY POWER, M.D.

Stereoscopy—Control of Quality

By H. D'Arcy Power, M.D.

With Illustrations by the Author

There are few fields in which more contradictory statements are to be found, and more false impressions current than in that of stereoscopy. Thus there is a very general belief, based on dogmatic statements in books and articles, that the halves of stereograms must, except in the matter of their drawing, be absolutely alike in color, and values. These and other statements I shall not only have to traverse, but to show that very often exactly the opposite is the case.

When we ask for quality in a stereogram we must first enquire what kind of quality. Is it the picture of a skin disease, or a butterflies wing, where, to physician or naturalist, the revelation of minute structure is the main consideration? Is it a portrait, where the revelation of the structure of a wart on the lady's nose is not of primary interest to the subject of the picture? Is it a landscape beautiful in atmosphere and massing, where foreground detail may be the reverse of the desirable? Clearly three such different subjects will demand qualities of surface, gradation, and color that lie far apart, and on each of these elements of a stereogram I propose to say a few words, and I believe that some of them will not have been said before.

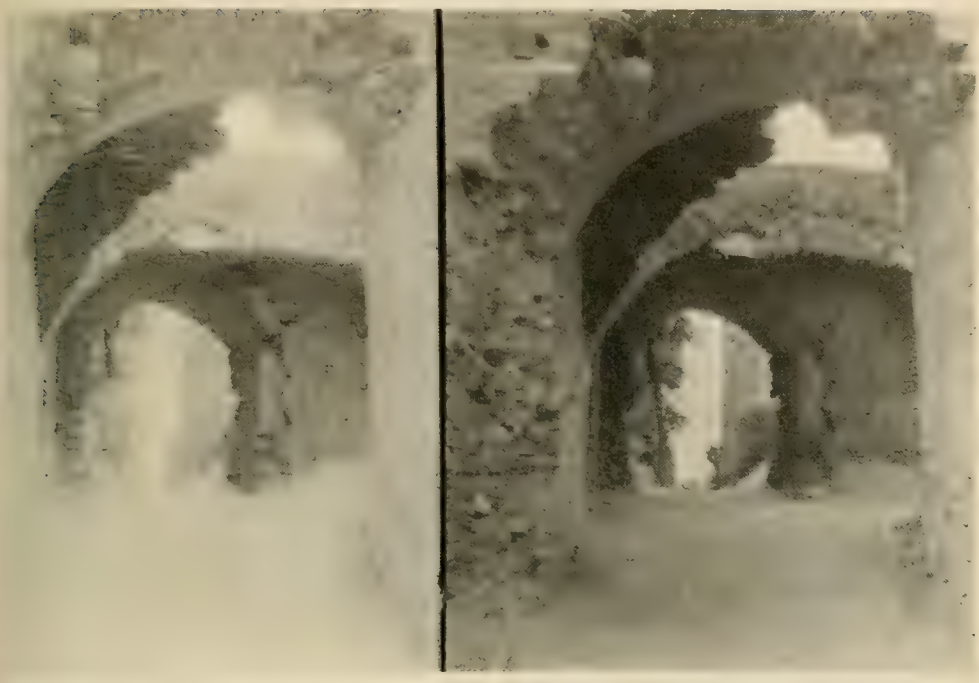
Lighting of the Subject

The thought underlying most writing in connection with stereoscopy is that the picture should reveal all the detail and projection that the

object possesses, and when the purpose is scientific this is a prime consideration. How are we to obtain such qualities? Obviously by impressing the negative with all the eye can see, when at attention. To do this the light must penetrate the most shadowed parts of the subject, and at the same time not destroy details in the high lights, by causing an impenetrable deposit of silver in the negative. This means prolonged exposure in diffused light. This is the lighting to employ in taking natural history objects, individual objects of merchandise, machinery, etc. It should be remembered that prolonged exposure is capable of revealing structural conditions that the eye cannot see. Thus a recess may have detail invisible to the eye, because of lack of light, and yet there may be enough present to impress a sensitive plate on prolonged exposure. It is the same principle that is employed by the astronomer in the detection of stars invisible, even with the telescope. Use can be made of this fact in the exploration of caves, and dark interiors. While diffused light is thus usually the most valuable in obtaining the maximum knowledge of objects, there are cases in which the reverse is the case. The recognition of texture by the eye is largely dependent upon the presence of innumerable cast shadows, obviously the lessening of loss of such shadows by diffused lighting is undesirable, and in recording the texture of the skin I have found that the best results are obtainable by flash light used at the proper angle. The exact angle must have reference to the coarseness of the texture to be recorded. When dealing with portraiture and pictorial photography the principles we have just considered have no application. What is now sought is not what the eye CAN see but what it normally DOES see, under conditions favorable to realizing the artist's desire. Here the ordinary principles of univisual lighting apply, but we must remember that the realization of the third dimension makes a great difference in the compositional effect of a photograph. Objects that in an ordinary picture might seriously interfere with the main subject may fail to do so in a stereogram, because the realization of intervening space may quite separate the two things. In the arranging of the lighting these differences must be held in mind. Stereograms have their own order of composition, the laws of which are still to be worked out. Before leaving the subject of lighting there is just one point that I would like to call attention to, viz,—There is nothing to prevent the two halves of the stereogram from receiving somewhat different treatment, thus one half can be taken with flat diffused light for detail, while the other may receive special lighting for accent.

Control of Detail and Values

The statement closing the last paragraph brings me to what I believe is the most valuable part of this paper, and to a method of procedure that, so far as I know, is new in practice. It is usually taught that the perfect stereogram should consist of pictures identical in everything, except drawing. It is often assumed that the eye is incapable of otherwise



STEREOGRAM By H. D'ARCY POWER, M.D.

combining them to give the third dimension. Both assumptions are untrue. We see a separate picture with each eye, they are combined to give the effect of one picture in the brain, not in the eye. A great many people go thru life with eyes that are optically different, the images they form are different images, the brain makes them one. There are of course limits to this combining power, but it is very great, and what is true of the images made by the eyes is equally true of the images made by two lenses. The two pictures of a stereogram may differ quite a little in drawing, a great deal more in texture, indefinitely in gradation, and almost as much in color, and yet the brain will combine them and perceive a picture that is a composite of the characters of each. Now let us see what this means in practice. We have to photograph an object one part of which presents detail buried in deep shadow, another part has detail in strong sunshine. The eye with its automatically adjustable iris, is easily able to see both, but no plate exists that will register both ends of the scale. Usually we make a compromise, and lose part of each; but we can do much better. We can make short exposure with one lens for the detail in the high lights, cap, and expose the other negative full time for the shadoy detail, or we can sufficiently stop down one for the high lights while the other is at full opening for the shadows, or if we possess a negative that to the eye shows detail at both ends of the scale, but will not print out without loss of one or the other, then we make a print from

each, one for the shadow detail, the other for the highlights, and when they are mounted to make a stereoscopic pair you will find that they will unite perfectly, and not only will the detail be preserved in high light and shadow but the scale of gradation will be lengthened. I have used all these ways, especially the last, and have never yet found anyone have difficulty in getting the dissimilar positives to combine. I have in this way obtained pictures giving information otherwise unobtainable, in one case legal evidence of importance. Yet another advantage may be derived from the use of unlike halves of a stereogram, namely when thru too close approach to the object the photograph gives an exaggerated relief, the unnatural effect may be greatly reduced by printing one of the halves very lightly. The scale of gradation may be completely controlled by using different papers, printing time and development for the component halves of the stereogram. For example, you may posses a negative giving weak contrasts, it is usual to print such on contrast paper with hard working developer. The result is to obtain more contrast, with however a great loss of gradation throughout, but if one half be printed on a normal paper, and the other half on a hard paper with only enough exposure to bring out the shadows fully, the two will combine in the stereoscope to give a picture with perfect gradation. By varying the relations between the two halves almost any desired result may be attained, provided the negative possesses the required elements. I am sorry that the available space does not permit me to illustrate with examples the great practical value of this method of working. I cannot conceive why it has not been in general use, and can only attribute it to the tyranny of tradition that insists that the two halves of a stereogram should be exactly alike.

Color and Surface

Just because a stereogram gives such a vivid impression of life so does it happen that any condition that conflicts with this idea of actuality will exercise a more disturbing influence than in an ordinary photograph, in which the pictorial convention is an accepted fact. Most stereograms today are printed in black and white. Nothing could be worse. Life and whiteness are alien. A portrait which is printed in a color near to that of the subject would astonish by its life likeness, rendered in white becomes a statue, stony and dead. Interiors look like models, landscapes unreal. None of this is necessary. We can obtain papers with tinted bases, to tone warm or green, or with gold we can tone to purple or red. The ozobrome process places all the tints of carbon tissue at our disposal, and we can transpose to any surface we like, including glass. For small prints the ozobrome process is simplicity itself. Lastly, and this so far as I know, is a new proposal, I find that the two halves of the stereogram may consist of entirely different colors and yet the brain will fuse them and perceive an intermediate tint. It is of the greatest value. I can sulphur tone one print and leave the other half white, the resulting image will

STEREOGRAM By H. D'ARCY POWER, M.D.

appear in a delightful warm tone, in the case of portraiture, exceedingly life-like. I can print one half of a landscape soft, for detail and tone green, and under print and fully develop the other half, toning to brown or purple, and the stereoscope combination will give a landscape with green foliage, and normal colored trunk and branches, and with shadows in contrast colors, as they should be. The working out of such combinations in practice is a matter for the individual artist, but it is easy to see what an added power it gives in seeking an approach to reality.

A final word as to surfaces. It is usual to print on glossy paper and ferrotype the prints. Undoubtedly such prints give the nearest approximation to reality, and for portraiture in particular, they are to be preferred. Their disadvantage lies in the care with which they must be made and preserved. Everything in a stereogram that was not part of the image formed by the lens on the negative appears as a foreign body floating in front of the picture plane. For this reason dust on the plate, dirt on the negative, abrasions and scratches on the prints produce results much more disturbing than similar defects in ordinary photographs. For this reason glossy paper is excellent for perfect negatives, but a less polished medium is better for defective plates, and as we see in the case of half-tone reproductions with an average paper, good results are possible with a very inferior surface.

The matters dealt with in this paper will receive further consideration when I deal with the subject of portraiture in a future communication.

UNDER THE PIER By HENRY A. HUSSEY
Royal Photographic Society Salon, 1923

A Criticism of Under the Pier

By L. A. Goetz

In the picture, "Under the Pier," Mr. Henry A. Hussey has made a very interesting arrangement out of ordinary and simple material. It represents the simplest conception of a picture on account of its strong vertical lines which are cut into rectangular spaces by the lines of the cliffs and the shadows reflected on the water. The oblique line of the breakers relieve the monotony of the horizontal lines and give a much more pleasant arrangement on account of its triangular formation. The lights and shadows on the water and the small figures here and there give roundness and the vertical lines strength. These lines being of different length stop the eye from concentrating on any one single line. The result is a variety which is pleasing, gives strength to the picture, and makes it a very strong composition.

One suggestion I would make which I believe might add further to the strength of the picture is:—Lighten the tone of the horizontal cliff line to give just a trifle more distance and remove the two figures on the right-hand side of the picture.

BUDDHA By O. C. HANSEN

Daylight—Flashlight

By P. Douglas Anderson

With Illustrations By O. C. Hansen

There is an old saying—"If you don't at first succeed, try, try again" and so it is with photography, there is always some way to get the result wanted by an enthusiastic photographer.

The Buddha reproduced in our illustration is located in the Japanese Tea Gardens, Golden Gate Park, San Francisco. Many a film has been exposed on this subject and it is safe to wager, that owing to the flat lighting of the subject, the exposure was a failure.

To those not familiar with the park, a few words of explanation will not be amiss regarding this particular scene.

The Buddha is covered by a roof, built very low, the eaves projecting down past the head of the figure to protect it from the weather elements. It also faces northeast and even during the summer months is always in the shade, thus making it difficult to get any relief in the subject. How Mr. Hansen overcame this problem will no doubt prove interesting to those who have photographed this particular subject or some similar type of subject.

Print No. 1 is a reproduction from an exposure made directly against the light, the result is fair but it isn't satisfactory as a picture. How to improve this picture was the problem that Mr. Hanson had to solve.

Mr. Hanson does a great deal of flashlight photography and when studying the print the thought came to him, why not use flashlight powder? The result was print No. 2.

Print No. 1 was made on a cloudy day. The 5x7 Eastman View Camera No. 2 was fitted with a 9½-inch Goerz Dagor Lens f 6.8. The exposure was 90 seconds at stop f32. The Commercial Ortho Film was tanked developed in Metol Hydrochinon for fifteen minutes and printed on Azo Paper.

Print No. 2 is a combination daylight-flashlight exposure. Approximately one-quarter ounce of Victor Flash Powder was used in combination with daylight with the lens stopped down to f-16. The camera equipment, etc., was the same as used in making print No. 1.

Advertising for Photographers

By Sigismund Blumann, Efficiency Engineer

Anyone who has something to sell, goods, or service, or skill, finds it necessary to bring his wares to the attention of the possible buyers. This is called advertising. By whatever form the exploitation is consummated it still is advertising. Though the professions are ethically opposed to forms of publicity, the various professionals find a hundred ways of circumventing ethics and so practice covertly what they condemn. As, for instance: The physician who has a striking automobile and maintains a million dollar front: The lawyer who subsidizes court reporters to make a "Headliner" of him every time he appears in court: The musician who changes his studio several times a year and sends out removal notices to prospects each time.

Now it may be true that "If a man make the finest mouse-traps in the world, the populace will beat a path to his door though he live in the woods." Maybe so. But it will take some time for the glad tidings to spread as to the merits of those mouse-traps, as to who is the maker, and where in which wood he may be hiding. I am not familiar with the initial cost of material and equipment for making traps but I am familiar with the overhead of business as conducted outside of the woods—in the bigger cities of America for instance and I want to assure my readers that long before the path is beaten to his door any photographer who waits for the merits of his goods, and that alone, to put him into the way of profit, will have failed, died of starvation and been buried. Advertising, when legitimately practised is legitimate, advisable, essential. It is a science, an art, and a profession in itself. And it has been reduced, often,

to a bunk. There is no mystery to it. Any man can write as good an advertisement as any other if he can qualify per the following requisites:

1. A knowledge of the language;
2. A knowledge of the business;
3. A knowledge of the possibilities;
4. A knowledge of the medium of display;
5. A knowledge of costs;
6. The ability to approach custom from its own point of view;
7. Integrity.

A knowledge of the language is the first requisite because the days of "Snappy Broadway" idioms are past. "Ho, Folks" and "Look a Here Partner" are gone with them—days which are lost forever. Even the leatheriest rough-neck no long enjoys being "talked down to." Good usage gets attention, respect, and wins.

A knowledge of business—of THE business. The best professional advertiser cannot do the photographer any good unless he will undertake to learn the business of photography. Not how to make pictures but how to sell them, to whom to sell them. Beware of the quack who claims he can sell anything and who tells you the basic principles of advertising cover anything. The great advertising agencies have a dozen specialists and these already qualified spend days of intense study before undertaking responsible, expensive accounts.

A knowledge of the possibilities would mean knowing where to find customers, how many can be gotten, how to appeal to them.

A knowledge of display consists of familiarity with the journals, places, ways of placing advertising matter.

A knowledge of costs—the ability to estimate how much the possible returns will warrant in publicity expense.

The ability to approach from the buyer's own point of view almost expresses the whole but may be amplified by saying that many advertisers pay for material which pleases them, their peculiar taste, or their vanity rather than for what will appeal to the buying public.

Integrity is the fundamental principle of all good business. In this case it means promising nothing, causing nothing to be inferred which shall not be fulfilled to the letter. Honesty in advertising pays. It pays if you mean to stay in business and get repeat orders. The so-called transient trade is expensive to get and expensive to handle. Each customer entails the cost of getting whereas a steady customer once gotten is his own salesman and serves you free. Transient trade is expensive to handle because you can never gauge your overhead and equipment—business may come in a rush or not at all.

Now, photographers cannot afford, and should not risk large investments in advertising because the utmost returns do not warrant it. Hartsook can afford to be an exception because he runs a chain of establishments.

Nor should the photographer pay large fees to advertising agents. In fact the larger agencies are filled up with big accounts and being able to afford truth will tell him so. But he should make an effort to advertise wisely, rightly. He can do this easily enough with the advice of his supply house, the Eastman people, the visiting salesmen and by studying other advertising. By all means consult the publishers of Photographic Journals. It is to their interest that you succeed. Here and there a mediocre accountant, or a discharged space-salesman who cannot make good undertakes to sell himself as an advertising man. Beware, my friends, beware! He has nothing for you and the small fee he asks is augmented by his commission from the publications in which he places your advertising matter. This will arouse much ire in several places but I tell you an honest agent cannot serve you and the publisher at the same time by placing you where he can get his commission not where you should be placed.

Write your own advertising, try to anyhow. Ask your business friends how it appeals to them. Ask your wife or the shrewd lady in your reception room. Learn all the time and every way. Dress your windows often and please keep them clean. And for a final word—make up your mind just which class of trade you want and are able to get and to satisfy and govern your display, both as to window dressing and printed advertising accordingly.

Speaking so much of cost and overhead tempts me to beseech photographers to give more thought to these matters. I spoke to three prominent portraitists and while each knew what his rent, and his salary list, and his income was, none could tell me within forty per cent. what his overhead was, what his sales and production costs are. I should like to talk about that but it is apart from the present subject.

Solution Bottles

Have you ever been stuck for a solution bottle. I used to be. Now I keep several on hand. You all know those large, brown chemical bottles. Those are what I use. I never buy chemicals in quantities large enough to get one of these, but a photographer down town does. Incidentally, he doesn't buy enough of them to make it worth his while to resell them. They are not large enough to hold his solutions and he usually throws them away. I asked him for some and got them for nothing. New stoppers cost little. By boiling out, most of them will be fit for use with any chemical solutions.

Go over the list of photographers in your town and see which one will be most likely to accommodate you. He may charge you a few cents for them. They may, of course, be had in many sizes.

Contributed by Frank Stratton, Lawrence, Mass.

The Passing of James Henry Smith

JAMES HENRY SMITH

In the death of Mr. James Henry Smith on December 5th, 1923, the photographers have lost a friend who was ever ready to lend his aid in every way to them.

His life contained much of romance, inasmuch as a less determined man would not have had the courage to surmount the difficulties that bestrewed his path through life.

His characteristics that enabled him to turn disaster into a victory were the characteristics that endeared him to so many friends.

The following are a few of the interesting events in his life:—

Born at Frankfort, N.Y. June 6th, 1842.

Enlisted in the Union Army Aug. 9th, 1862 in the 121st N. Y. Regt. Was in twenty-five battles.

Served to the end of the war, being a lieutenant at time he was mustered out of U. S. service on June 25th, 1865.

Shortly after went to visit a sister in Dekalb, Ill.

Sold hand sewing machines in northern Missouri; then a history of the Civil War through southern Illinois.

Arranged with a photographer (L. S. Neff) of Belleville, Ill. to teach him the photographic business for $40.00. Stayed with him two months, then bought half interest in Mr. Gaut's studio at Mt. Sterling, Ill. Later bought Gaut's interest, and operated the studio six years. Here met and married Emily Z. Adams.

In 1872 formed partnership with E. Long at Quincy, Ill. in a photographic supply business. Later purchased Mr. Long's interest. Continued the business successfully for many years despite two serious setbacks—one by cyclone; one by fire. In 1884 sold out to Robt. Dempster, and moved to Chicago, forming a partnership with Thos. W. Pattison, under name of Smith & Pattison, dealing in photo supplies. Had a severe setback by fire a year and a half later, but re-established themselves in a new location.

In 1887 was secretary of the Photographic Merchants' Association. In 1890 partnership with Pattison was terminated, general stock of miscellaneous supplies were sold to Sweet, Wallack & Co., and under name of Jas. H. Smith & Co. manufactured photographic specialties (many of his own invention). In 1900 his place of business was completely destroyed in a big fire. Suffered a very heavy loss due to insufficient and bad insurance. Immediately started in a new location and in a year was again visited by the fire fiend. The losses incurred in these fires and the loss of patronage after them due to inability to supply customers' needs compelled him to go into bankruptcy in 1906. Creditors received 50 per cent. of their claims and he, at the age of 64, had seen his life's earnings swept away.

He had health and determination and after considerable experimenting produced a flashlight powder having 24 times the illuminating quality of the best-selling brand then on the market. Although without capital he gradually by tireless efforts built up the sale of this powder ("Victor") and flashlight apparatus of all kinds, with a few other specialties, to a very satisfactory business. Was assisted in this by his sons Jay A. and Herbert M., the business being incorporated in April 1909 as Jas. H. Smith & Sons Co. In 1910 they erected a plant at Griffith, Ind. which was replaced after an accidental explosion in 1919 by a most modern plant for the manufacture of flash powders.

Was Commander of the Geo. H. Thomas Post of Chicago of the G.A.R. during 1921.

Was Commander of the Illinois Commandery of the Loyal Legion during 1920, and was also President of the Western Society of the Army of the Potomac during this same year.

Was Elder of the Sixth Presbyterian Church from 1894 until its merger in 1918 with the 1st Church and Elder of this latter church to the time of his death.

Lost his wife in March 1923, about a year after celebrating their Golden Anniversary. Is survived by a daughter Ada M. and three sons; Homer H., Jay A., and Herbert M., the latter two conducting the business which he last established.

The Perfection of Art

The perfection of an art consists in the employment of a comprehensive system of laws, commensurate to every purpose within its scope, but concealed from the eye of the spectator; and in the production of effects that seem to flow forth spontaneously, as though uncontrolled by their influence, and which are equally excellent, whether regarded individually, or in reference to the proposed result. John Mason Good (1746-1827). The Inland Printer.

CAMERA CRAFT

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The Dark Horse Wins

Below is copy of a letter from Clarence Stearns, President of the Photographers' Association of America, to Laurence B. Morton, President of the Photographers' Association of California.

Jan. 11th, 1924.

Photographers' Association of California,
Mr. Laurence B. Morton, President,
No. 515 Market Street,
San Francisco, Calif.

Dear Mr. Morton:

I want to assure you, that it was with many regrets that the Executive Board of the P. A. of A. decided it could not accept the invitation of your Association to hold its next Convention in San Francisco.

Cold figures were things your warm invitation could not melt. The cost of a National Convention is such that it requires a large attendance of photographers and the support of many manufacturers. While a few photographers will travel long distances to a Convention, experience has shown that the percentage who will travel over 500 miles is very small. The number of photographers within a 500 mile radius of San Francisco is so small that both the Board and the Manufacturers and Dealers, who met with us, knew the risk was too great, so decided upon Milwaukee, Wisconsin. An estimate of contributory territory showed something over seven times the number of photographers within 500 miles as compared with San Francisco. And therein lies the whole story.

The entire Board, P. A. of A. and some fifteen members of the Manufacturers' Exhibition Bureau, who met with us, looked the facts in the face and were all of the same mind. We hope the good work you have done may be utilized toward putting on a successful Convention of your own, in which we will gladly assist.

We appreciate the effort you have made and the fine spirit you have shown.

Cordially yours,
CLARENCE STEARNS,
President, P. A. of A.

We, of the Pacific Coast, would have been very glad indeed to have had the opportunity of proving to our National Association our ability to make good in every way, especially in attendance, had we had a chance. Of course, this seems easy to say, but we who have worked so hard to bring the National to the coast know that such enthusiasm was never aroused in any section of the country over the National Convention as was aroused upon the coast. We know, also, that there would have been a membership of well over a thousand from the coast alone, for we had secured five hundred and twenty-four with double that number willing to sign in case

the decision was in our favor.

The National Convention will be held in Milwaukee, August fourth to eighth, inclusive.

There is a possibility that the Photographers' Association of California will accept the invitation of the Photographers' Association of the Pacific Northwest and hold a joint convention at Portland, Oregon. I. M. R.

Merchants' Photographic Coupons

Many are the varied methods used and operated by stores in order to increase their business and their profits. The Merchants' Photographic Coupon has proved itself not only a failure but a serious detriment to their business.

In other words:—The Merchants' Photographic Coupon proves a business loser instead of a business getter for both the merchant and the photographer. The agent who sold the coupons to the merchant in behalf of the photographer is the only one who benefits. How the agent gets around the photographer in the different towns he visits is an interesting story.

He selects a photographer in the town he happens to be visiting and calls on him. If the photographer doesn't accept the proposition favorably the agent explains that his competitor has agreed to put the plan into operation and actually shows a contract signed (apparently) by the competitor for the distribution of say one thousand coupons. The agent goes on to say that he knows from past experience that at least three thousand (or some other large number) coupons can be sold in this town and he is, therefore, giving the photographer (to whom he is talking) the preference.

His story is always false and would soon be found out if the photographers in a town would only get together and compare notes. This is what associations are doing. Every locality should have a local meeting of photographers monthly so that these affairs could be discussed and such practices suppressed.

The merchant advertises something after this manner:—With each and every purchase over a certain amount he will give a coupon that will entitle the purchaser to one free photograph upon presentation to a certain photographer in town.

The photographer soon finds out that if the owner of the coupon takes one photograph only he will soon be a bankrupt and therefore he endeavors to increase the initial order. In his anxiety to increase the order he very often offends his patron. The patron returns to the merchant from whom he obtained his coupon and lodges his complaint against the photographer.

What is the result? After a few complaints the merchant very often becomes disgusted knowing as he does, that a dissatisfied customer is not to his advantage. As a result, to safeguard himself he generally gives away the balance of the coupons left. These coupons invariably fall into

the hands of people who are looking for something for nothing and undoubtedly this is bad for all concerned.

All campaigns to further the interests of the photographic profession should be such as will satisfy their patrons and create the desire in them to return to the photographer at future dates with more business. It must be admitted by all concerned that the MERCHANTS' PHOTOGRAPHIC COUPON cannot be expected to have such results and should be banned by all photographers. P. D. A.

Repolishing Lenses

The lens equipment of a studio is one of the most valuable assets of the business and it behooves the owner to take the greatest care of it.

Recently, several lenses in this city were supposedly cleaned and repolished, the work being done in a hotel room.

Repolishing of lenses is a very delicate process and should only be done by a responsible party. The manufacturer of your lens is equipped fully to handle this for you and it is to his interest to do it properly. This can be handled for you through your photographic dealer. When they handle the lens you have a guarantee that the necessary work will be done in a satisfactory manner.

Do you have this guarantee when a stranger calls at your studio?

Service is the keynote of selling nowadays and it is always best to consult your own photographic dealer who wants you to succeed. P. D. A.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

For the sake of comparison, the membership of the P. A. of A. at the close of business on December 31st for the past two years is set forth in the following tabulation:

	1923
Life members	71
Active—	
Portrait	771
Commercial	78
Associate—	
Studio Employees	263
Manufacturers and Dealers	233
	1416

Withal, the records show that 278 new members were received between March 1st and July 16th while 288 new members paid their dues at the convention.

Financially, the Association is in very good condition considering what it has gone through the past eighteen months.

To show the effectiveness of the Budget System it may be stated that the anticipated balance for September 1st, 1923, was $2,817.00 whereas the treasurer's statement for that date shows total resources of $2,725.41 with but one convention bill of $263.40 unpaid having a net balance of $2,462.01 to which again may be added

the $390.00 payable on convention space—a total of $2,852.01.

This is an exceptionally good showing in view of the fact that the committee had very little to guide them in preparing the budget. It also speaks well for the officers for living within their means.

A system was installed for keeping a statistical record of membership, such as name, address, dues received and date, new or old, magazine desired, date of mailing card, plate and transparency, etc., and has proved very effective as a ready reference, labor saver and for accounting of members.

In addition to the regular membership correspondence, mimeographed letters have been mailed from time to time, to a list of three hundred and fifty traveling men informing them of affairs in the Association and soliciting their co-operation. The regular weekly publicity has been prepared for Abel's Weekly and the Bulletin of Photography and "News Notes" sent to a list of forty-seven manufacturers, dealers and stock house organs whenever information was at hand that would warrant the title.

The condition of the treasury did not require the mailing of bills two or three months ahead of the current year so a general release was made of 1,453 bills to paid-up members and about 1,800 to those whose dues have lapsed the past two or three years. At the same time, membership cards and a letter were mailed to life members and a New Year's letter mailed to all convention exhibitors and the traveling men.

The convention at Washington, considering attendance, was rather disappointing as our boosting for 2,000 netted us but 1,250. After completely circularizing the profession three times through the courtesy of the Eastman Kodak Company and their mailing list, it is difficult to attribute the meager response to any one cause. The financial side was well managed by budgeting, with the result that all bills were cleared off and a balance on hand September 1st as previously stated.

The one lament of course, is the delay in obtaining the stenographer's report of the convention. This has truly been a lesson in false economy by which we should profit. Reports have been turned out as daily copy before and while the expense is considerably greater, the immediate results most certainly warrant it and the confidence and good fellowship of the membership is materially strengthened. We know this to be a fact from the many letters of regrets received at this office on this point. The report in the form of an annual, or otherwise published in one complete copy, is strongly recommended as this can be done at no expense to the Association if gotten out immediately after the convention and will undoubtedly influence many to join in 1924 when advertised in advance.

As a nucleus for the Traveling Exhibit of Pictures, a collection was made from the salon of the Washington convention and first sent to the Pacific Northwest convention. Thence returned to the Des Moines convention where the first traveling exhibit was extracted, the balance of 144 pictures going to California for their convention and a few smaller meetings. It was received back at the secretary's office in Washington the last week in November and immediately divided into four smaller exhibits. Wooden cases with screwed lids were built to size, insuring a snug fit and safety in transit. The three exhibits now on the road have answered eight requests to supplement private exhibits. Two are in the office of the general secretary ready for immediate release. All pictures were numbered, listed and securely packed, the cases making reshipment an easy matter for members who desire to make use of them.

Winona School

The fact that the attendance at the second session last August was twice that of the previous year shows how enthusiastic is the desire for advancement. One hundred and ten enrollments were on the books before the roll was closed to prevent overcrowding. After this several telegraphic reservations had to be refused. There is a growing demand for an advanced course for the more experienced; also for a commercial class. This latter

will hardly mature this year. Minor changes in the interior of the building will permit the comfortable handling of five classes of twenty-five students, of which one or two will constitute the advanced classes.

The success of the school is largely attributed to the generosity of the manufacturers and dealers in donating complete equipment for every department of the work. The Association is to be congratulated for having such a hearty endorsement of the activity and the donors are deserving of a deep sense of gratitude from the officers and members of the P. A. of A.

Mr. William H. Towles of Washington, D.C., acting as director for the two sessions possesses a remarkable talent for instructing and managing in addition to his ability as an operator. In the score of testimonial letters received at headquarters from 1923 students, he is highly praised and many prospects are expected to return in 1924 for the advanced work if he is again in charge.

By judicious expending of the Winona School Fund, the remodeling and operating charges together with the moneys advanced from the general fund have all been cleared off with all bills paid and the account closed. Statement of the account has been turned over to the president and Mr. George W. Harris, chairman of the Board of Trustees.

To put across the Revision of Postal Regulations with the present Congress of the United States it is imperative that the entire photographic profession stand shoulder to shoulder from the president down to the youngest associate member and support the front line of attack—the Committee on Legislation. This committee, appointed a couple of months ago has been working on its local congressmen and as soon as the Congressional Committee on Post Roads and Post Offices is appointed, every photographer in the country will be asked to address his representative in support of Congressman Kelly's bill. The surest way for the individual to support this movement is to take out membership in the P. A. of A. so that the Committee on Legislation will have a solid representation of their profession back of them.

Note:—In our advertising pages you will find forms to join the P. A. of A. and to enroll in the Winona School.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

Meeting of the Photographers' Association of California, on January 14th, 1924

President Laurence B. Morton called the meeting to order promptly at 6:30 p. m. and after the routine business was finished, read the following telegram:

"Regret that Executive Board find it impracticable to take convention to San Francisco this year. Hope your efforts will pave the way for a California Association convention in which we will be glad to assist. Full explanation to follow.

CLARENCE STEARNS,
President, P. A. of A."

Then a telegram was read from J. A. Zinn, Jr., President of the Photographers' Association of the Pacific Northwest, in which Mr. Zinn says:

"Strongly urge your joining our convention late August or early September. In convention we certainly ought to make it the issue to consolidate our associations, thereby giving us greater strength with benefits surpassing the national. Your approval will bring me officially to your city to arrange details satisfactorily. J. A. Zinn, Jr., President, Photographers' Association of the Pacific Northwest."

Mr. Mose Grady, one of the leading photographers of Seattle and a prominent member of the Photographers' Association of the Pacific Northwest, then spoke on the benefits of forming a Photographers' Association of the Pacific Coast. Mr. Grady's talk was most interesting inasmuch as he gave us briefly his experiences at different conventions and his views of conventions before and after he had attended. His talk was all in favor of conventions and of the benefits to be derived from them. The applause which followed his remarks showed that he had the members with him. At the conclusion of his talk Mrs. Ednah Morrison, well known photographer from Visalia and Secretary of the Central California Photographers' Club, heartily endorsed Mr. Grady's remarks, and told us of the benefits she had received when she was a member of the Missouri Valley Photographers' Association. Her remarks were thoroughly enjoyed as always.

It was moved, seconded and unanimously resolved that the matter of joining the Photographers' Association of the Pacific Northwest in a convention at Portland, Oregon, be left in the hands of the Executive Board with full power to act. Then a very instructive talk was given by Mr. W. E. Dassonville on "The Science of Photography, Weights and Measures." Mr. Dassonville made his topic of such interest, that many questions were asked by those present and all agreed they had learned many things worth knowing.

Mr. Dassonville's Talk

The Metric System

Mr. Dassonville: I know it is customary to begin a talk of this sort with the words, "Ladies and Gentlemen, Fellow Members of the Association" and so on. That expression is not natural with me, so I am going to use exactly the words I would like to use, and I am going to say—Fellow Craftsmen: I feel that an Association, a group of people, are only strong so long as they serve a purpose. When they cease to serve a purpose, they become weak. And, when Miss Dahl spoke to me about the possibility of my giving a series of talks to you, I laid out in my mind various things that, at one time or another, I have wanted to know, things that I have found most valuable in my work, and I decided that I would arrange those things in order that there might be some purpose in my talk.

The first thing that we are going to speak of, tonight, is dry, unutterably dry; it is going to be difficult to present to you. But I can assure you that, if you can get into your minds the idea that I wish to convey to you, you will have a bigger, broader understanding of photography; you will be able to diminish your cost of doing business, you will be able to work more rapidly and more efficiently; and your results will be definite, and you will surely be able to find your way out of many troubles because, if there is any field in which it can truthfully be said that knowledge is power, it is in the field of photography.

In my own endeavors to understand the nature of photographic chemistry, I found very little in the printed literature; and when I tried to fathom some parts of photography, I found that, wherever I turned, I had to have a certain knowledge, a certain foundation, before I could get anywhere. Photographic books were lacking in that particular knowledge. It is that foundation which we will deal with, in particular tonight. I have found that, in many cases, photographers do not understand what is meant by "per cent," so I am going to tell you something about what a per cent solution means.

We have three distinct weights and measure tables: We have the Troy system, the Apothecary and the Avoirdupois. Photographic formulae are in Avoirdupois, which gives 437.5 grains to an ounce.

Now, for the purpose of understanding the per cent system, we first take a graduate or other vessel for containing a liquid, one which will hold 100 ounces. Then we take, according to the Avoirdupois system, 437.5 grains, say of bromide of potash, and put that ounce in the vessel and dissolve it, and then fill it right up to the 100 ounce point. We then have put one ounce into a hundred ounces of water; and that is a one per cent solution. Or, if we had just put in ten ounces with the same amount of

water, we would have a ten per cent solution. That, in other words, means that one-tenth of that solution contains one-tenth of the amount of that substance that is in solution. So, if we wish to take out half an ounce of the substance in the case of the one per cent solution, we take half of it, or fifty ounces of our liquid, and know positively that we have the correct amount. So if we want a quarter of an ounce of the substance, we take twenty-five ounces of the one per cent solution.

It is customary with us to speak in terms of ten per cent, so that by taking ten ounces of a ten per cent solution—remembering that a ten per cent solution is ten ounces of the substance to a hundred ounces of water, we get one ounce of the substance to ten ounces of water, which is also a ten per cent solution, the multiple being the same. So it is customary to make up ten ounces of a solution containing one ounce of the substance and call it a ten per cent solution.

But, if you want to get a definite number of grains, you have a job on your hands. For example, in a solution of that character, 437.5 grains in ten ounces of water, how are you going to get out ten grains. I got brain fag out of it. And that is the real, honest reason why so many of us have not any technical knowledge—because you don't know your weights and measures. It is just a great, big mix up. By proportioning the number of grains to the liquid or vice versa, this can be adjusted, but it is still unwieldy.

Let us forget this system of ours and examine the metric system. It makes no difference what scientific journal you pick up, British, French, Russian, German or American—all that group have taken the metric system for their work; every formula is written in the metric system. How simple it is, how easily operated, and how much it will mean to you when you have it! I do not know whether you are familiar with the character of the system. Broadly speaking, the metric system is identical with the dollar and cent system of our country.

This one hundred cubic centimeter graduate for example, is a multiple of ten or a thousand. This is a Litre. Now, here is my block of weights. They are arranged in sequence so that it makes no difference what per cent you want, it is easily gotten. Now, one gram equals fifteen grains (not accurate). So when I pick up this little fellow I pick up fifteen grains. I will write a formula and show you how the per cent system works out.

Water a hundred cubic centimeters. We are going to take half a per cent of metol, which is .5, that is half a gram. Four times as much hydroquinone, which is 2. or two grams, which as you note is one weight. We want, say two and a half per cent of sulphite, that is 2.5; and we are going to investigate, as a matter of interest, the amount of carbonate, we would like to use. We will add just one gram of carbonate, so carbonate 1, and test it. Add another and test it. Say we carry it to three. So, when we are through, we have written down a definite chemical formula; and if we find then that we want to mix up a larger quantity, all we do for example, is this: multiply by ten each line thus:

Water	100.00
Metol	.5
Hydroquinone	2.00
Sulphite	2.5
Carbonate	2.00

Multiplied by ten:—

Water	1000.00
Metol	5.00
Hydroquinone	20.00
Sulphite	25.00
Carbonate	20.00

So you see you can easily get somewhere, and know definitely what you are doing. Read in cents and the whole basis will come before you.

The question comes in: How are you going to convert a formula over into the metric system? Take this down on paper. It is frequently, in fact, generally, published erroneously. When you have taken these figures and I have told you how you can convert over to the metric system, you will be surprised how rapidly you will be able to work.

Dry substance:	Liquid:
1 oz.= 28.35 grams	1 oz.= 29.57 c.c.
1 lb. =453.59 grams	16 oz.=473.18 c.c.
1 gm.=15.4324 grains	1 gal.=3785. c.c.

The great difficulty in trying to convey the idea to one's hearers is that one is apt to be rather heedless of telling them exactly what they want to know. Possibly this will help. We will take, for instance, a typical formula:

32 oz. Water
½ oz. Metol
2 oz. Hydroquinone
3¼ oz. Sulphite
2 oz. Carbonate

Now, say that you want to convert that over into the metric system. We have first the 32 oz., that is a quart. We find that 473 x 2, (16 oz. two times) equals 946 c.c. We have ½ oz. of Metol; 1 oz. was 28. Half of that will be 14 grams. Four times that—56 Hydroquinone. The Sulphite, 3¼ oz. We know that each ounce is 28, so 3¼ times 28 will make 91 grams; and we have Carbonate 2 oz. which will make 56 grams. So we have converted that formula into the metric system. It is not as readable on that point as I personally would make it. I would put that in proportion so that it would read 1000. Dry substances are grams and liquid cubic centimeters. If you want to make up a smaller quantity, point off one decimal, and the formula is at once just as accurate as in the full amount.

By the use of the metric system, you can cut down your cost of operating and learn to think without confusion, which is a tremendous benefit; and then you can shift your formula back and forth, which may also be a very important help.

As to the temperature for mixing chemicals, it is important when you are making up a definite per cent of solution. Put the dry chemical into the vessel and then add some water, enought to dissolve. After solution, add the required quantity. Remember that water contracts and expands according to whether it is cold or hot. So that, if you wish to make a careful per cent solution, the temperature at the time of pointing off is of the utmost importance. It is better to leave the solution till the following morning before adding the final amount of water; then you can read it off accurately. The temperature for using a developer is about sixty-five degrees (65°) Fahrenheit. In use the temperature is far more important than you may think. Take a piece of paper, expose and develop. Then chill the developer down on a block of ice and then try to make another print. You will be astonished. Accurate knowledge is a tremendous short-cut. I use distilled water for my solutions; it is worth while; they last and are effective much longer. Each chemical in a developer has a definite, fixed result. Metol gives a great deal of gradation. Hydroquinone gives a great deal of density and little gradation. Mix the two and you get both qualities. Sulphite is used to prevent oxidization. Hydroquinone is perfectly useless when the temperature drops down; then the Metol has to do all the work. Metol is not a density giving developer. I am not certain whether we are not using twice as much Hydroquinone as we need. In such thought is where economy lies.

Never get less sulphite then carbonate in your developer. Keep carbonate out of the developer until just before you want to use it, and it will last much longer.

I do not believe, myself, that photographers do not want to know; I honestly believe that they want to know; but there has been that awful haze of weights and measures that has kept them from proper thinking.

Think seriously of the possibilities of the metric system. It will increase, without any effort on your part, the actual amount of work that you can do today, and it will give you accuracy, and you will be reasonably sure of the weight of a thing. Our present system is far more wasteful than you think.

If we could get the rest of the Photographic Associations of America to petition all manufacturers of photographic materials to write their formulae in the metric system, we would have done a great work. (applause.)

President Morton thanked the speaker for his very instructive talk and wondered how he could have made such a very dry subject so intensely interesting.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

Enlarging Hints

An enlarging camera is a wonderful instrument, and yet I wonder if we all use it to the fullest extent possible. With its aid the side lines of a house that are not parallel in the negative (due to the camera being pointed upwards at the time of exposure) can be made correct in the finished print. A small portion of a negative that contains the almost hidden composition can be enlarged, so that its beauty is a joy to the beholder.

Again, negatives that are too sharp can be slightly softened by using bolting silk or chiffon over the lens or between the lens and the projected image on the easel.

Very beautiful effects are obtainable by using a diffused focus lens for projecting the image on to the enlarging paper. Two methods of using the diffused focus lens for projection purposes are fully described by Sigismund Blumann, Efficiency Engineer, in the April Camera Craft, 1923, and by A. J. Rich, Jr., in the August Camera Craft, 1923.

Making lantern slides is another very interesting process, that can be done well, by means of an enlarging camera, especially when working with different size negatives. In fact, it is hard to enumerate in this short article all that can be done with an enlarging camera.

Bolting Silk

A very beautiful degree of diffusion can be obtained in an enlarged print by using silk or chiffon over the lens. For holding the silk the writer finds embroidery hoops very satisfactory and convenient to use. Hoops, size six to eight inches in width, will be found best for general use.

Sometimes it is necessary, to use a double thickness of bolting silk over the lens during the entire exposure, to obtain the desired effect. Again, all that is required is to give part of the exposure only with the silk over the lens. Holding the silk at a point somewhere between the lens and the projected image, will give an entirely different degree of diffusion from that which is obtained by holding the silk close to the lens. Placing a large piece of silk in contact with the paper and enlarging through it, imparts to the finished print, a linen or canvas finish that is well adapted to some types of subjects.

Ground Glass or Celluloid

Another method used to soften the image when enlarging, is to use ground glass or celluloid in the printing frame, ground side in contact with the paper. This system of working gives a very pleasing and soft quality to the print. By the way, many workers place ground celluloid between the negative and paper in contact printing, and obtain very pleasing results by this method of working.

Plumbing a Building

In these days when hand cameras are so popular and universally used, it very often happens that in order to get the top of a building in the finder, the camera is tipped, with the result that in the negative the sides of the building are not parallel. This is an error that can be very easily corrected in the enlarging camera.

Some workers only tip the easel in order to plumb the lines of the building, but it is advisable and very often essential that the negative be tipped approximately about half the necessary angle in conjunction with the easel to get the best result. Tipping the easel only, tends to shorten the image slightly, depending on how much the building is out of plumb. It is also necessary to stop the lens down more to obtain sharpness of focus in the projected image.

Putting Clouds in Landscapes

Very often a landscape composition, that should be attractive, is not, owing to the

effect of the bald-headed sky on the beholder. To put clouds in a landscape of this nature is not a hard task, provided a suitable cloud negative is available for the purpose.

One of the simplest and easiest ways to do this work is with an enlarging camera. A non-technical article with illustrations, written by J. G. Pratt, that appeared in the 1923, December Camera Craft, fully describes this very interesting process.

The Diffused Focus Lens

A great many workers make the original negative sharp and obtain the necessary degree of softness in the print by projecting the image through a diffused focus lens. Very pleasing results are obtained by this method of working and it has much to commend it.

On the other hand, many workers do not favor this method, they prefer to make the original negative with a diffused focus lens and enlarge with a sharp focus lens. Both methods have their good points and both are right. The final print is the test. If it is a winner, it doesn't matter very much which method was used in making it.

Handling the Paper

When the print is eight by ten or smaller it can be placed in the developing tray and developed without any preliminary wetting of the paper. If the print is larger than this size, it is best to soak it in water until it is limp before putting it in the developer. If this is done, not only can a smaller amount of developer be used, but the print is bound to be evenly developed and not in streaks which might possibly happen if this part of the operation is omitted.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

Cobalt Toning

Besides gaslight and bromide papers, gelatino-chloride and albumen papers are suitable for toning, but collodion papers are not. Printing-out papers must be printed just as usual, washed to remove the free silver, fixed in 5 per cent neutral fixing solution, and thoroughly washed. Only well-washed prints should be toned, but it is not necessary to give any unduly long washings between the single baths.

The materials for the process may conveniently be kept in the form of the following stock solutions:—

I.—Cobalt sulphate	10 gms.	1 oz.
Water	100 ccs.	10 fl. ozs.
II.—Potassium ferricyanide	20 gms.	2 ozs.
Water	100 ccs.	10 fl. ozs.
III.—Potassium citrate	10 gms.	1 oz.
Water	100 ccs.	10 fl. ozs.
IV.—Ammonium citrate	20 gms.	2 ozs.
Water	100 ccs.	10 fl. ozs.
V.—Citric acid	10 gms.	1 oz.
Water	100 ccs.	10 fl. ozs.

A1.—Toning Bath for Violet Tones.

Water	80 ccs.	1 fl. oz.
Solution i	2 ccs.	12 mins.
Solution iii	15 ccs.	1½ drs.
Solution v	0.5 to 1 cc.	3 to 6 mins.
Solution ii	.8 cc. (= 16 drops)	5 mins.

An alternative bath, which is equally useful, although deteriorating more rapidly, may be made as follows:—

Water	90 ccs.	1 oz. 1 dr.
Solution i	1 cc. (= 20 drops)	6 mins.
Solution iii	7.5 ccs.	45 mins.
Solution v	0.5 cc. (=10 drops)	3 mins.
Solution ii	1 cc. (=20 drops)	6 mins.

The prints are to be rocked in these solutions for 10 to 15 minutes, until they have acquired a violet tone. The first-mentioned bath acts more regularly. After this toning the prints are removed, vigorously rinsed on both sides, and washed for about five minutes in repeated changes of water. Should the color revert meanwhile, the print is re-immersed for another five minutes in the toning solution. Prints which are too vigorous to be suitable for after-treatment may, if necessary, be toned a third time, in order to get an even tone which is not affected by the washing water.

A2.—Toning Bath for Red Tones

Water	75 ccs.	7½ drs.
Solution i	2 ccs.	12 mins.
Solution iv	12 ccs.	72 mins.
Solution ii	0.8 cc.	5 mins.

Citric acid is unnecessary, since ammonium citrate has itself an acid reaction.

The following bath is equally useful:—

Water	90 ccs.	1 oz. 1 dr.
Solution i	20 drops.	6 mins.
Solution iv	6 ccs.	36 mins.
Solution ii	20 drops.	6 mins.

The treatment of the prints is the same as in the bath for violet tones. In the given amount of solution from two to four cabinet prints may be fully toned. For two or three ¼-pl. prints a third of the above quantity is sufficient.

B.—Oxidizing Baths

To 100 ccs. (or 3½ fl. ozs.) of water about 20 drops of a 20 per cent solution of sodium nitrate are added, and then 10 drops of concentrated hydrochloric acid.

Having been toned and washed for 5 to 10 minutes, the prints are then immersed in this solution for ½ to 1 minute, until the desired effect is obtained, and are afterwards washed for 5 minutes. This bath will not keep, nor is it suitable for lantern plates and negatives on glass or celluloid, since the gases evolved raise the film from the support and give rise to blisters.

A second bath, which may be kept and used repeatedly, is the following:—

Water	100 ccs.	3½ fl. ozs.
5 per cent chromic acid solution	2 ccs.	34 mins.
Concentrated hydrochloric acid	10 drops.	10 drops

Particularly when freshly made, this solution colors the whites of the print, but the yellow color is very rapidly removed by water. This solution may also be used without risk for plates and films.

C.—Decolorizing Baths

For the removal of the blueness ammonia diluted to form a 1 to 2 per cent solution may be employed, but only at the risk of degrading the whites. A solution which acts more cleanly is given by treating a 1 per cent ammonium citrate solution with caustic soda lye until it smells feebly of ammonia. A solution of potassium citrate with a little ammonia added may also be used for the purpose of this bath.

This solution will, as a general rule, be used for oxidized prints, which naturally have the strongest blue tinge, but it can also be employed after the toning bath. Further, prints decolorized with this solution may be treated with oxidizing baths, which will at least partially restore the bluish tone. If so treated with the toning solution, the print must be well washed, since any remaining ammonia would induce a strong degradation of the whites.

D.—Sulphiding Baths

For the sulphiding of toned prints a stock solution may be prepared by dissolving 10 gms. of pure sodium sulphide to form 25 ccs. of solution. The addition of 1 to 2 gms. of crystalline sodium sulphite tends to prevent deterioration.

(1) When it is desired to obtain only the brown of silver sulphide; the well-washed toned prints are placed for ½ to 1 minute in a bath containing 15 to 20 drops of the sulphiding solution in 100 ccs. (3½ fl. ozs.) of water, and finally thoroughly well washed for 10 to 15 minutes. The cobalt color may be restored with an oxidizing bath. The print will now show a brown tone, with a slight tinge of blueness: but this tint can be removed by means of bath C, to give a somewhat -lighter shade of sepia. A similar shade results if bath C be used before the sulphiding.

(2) To obtain a still darker sepia, a bath is made by the addition of 40-50 drops of the stock sulphide solution to 100 ccs. (3½ fl. ozs.) of water, and the immersion of the prints in this bath for a rather longer period, 1 to 2 minutes. After being thoroughly washed, the prints are oxidized as usual, though in this case no appreciable color change occurs. Contrasty prints are unsuitable for the sulphiding process.

Finally a summary of the approximate tones which may be obtained by the process may be given. In the following table the letters indicate the succession of baths:—

A1.—Violet to plum-blue, bright.
A2.—Rust-red, bright.
A1C.—Rust-red, bright.
A1B.—Violet to plum-blue, deep.
A2B.—Violet, deep.
A1BC.—Rust-red, deep.
A1D1.—Sepia-yellow.
A1D1B.—Sepia-violet.
A1D1BC. } Sepia.
A1CD1B. } Sepia.
A2D1., etc. } Sepia.
A1D2B. } Dark brown to brown-black.
A2D2B. } Dark brown to brown-black.

The last two shades come into the question only when it is required to produce great intensification in the prints.

Cobalt toning can now take its place at once alongside the well-known methods, whilst excelling them as regards the beauty and brightness of the colors. Unfortunately, however, the cost of the process is at the present moment such as to preclude the possibility of any general use of the method for some time to come; however, it should be kept in mind that, as between 100 and 150 cabinet prints may easily be toned with 10 gms. of cobalt sulphate, this process is, at any rate, much cheaper than gold toning, and at the same time confers a greater degree of permanence on the finished prints.—B. J. of P.

Notes and Comment

Reported By Wm. Wolff

Frank B. Howe, of Pacific and Atlantic Photo, Inc., was in San Francisco during the first part of January. Forsook Los Angeles for a few days. Yes, his wife was with him!

Mabel Wong, formerly of Hartsook Studio, San Francisco, is now with Frank Astor, San Luis Obispo. Frank claims that she is a great help.

Allen and Metzler are in their new ground floor Studio at San Luis Obispo.

J. W. Collinge's prints of Santa Barbara and vicinity are beautiful. He sells to the trade for resale.

Green Studio—has a new ground floor Studio on Figgueroa Street, Santa Barbara, California.

Keystone Photo Service are moving to new location on Pico Street, Los Angeles. Paul Grenbeaux, formerly with Robertson-Cole Studio, Hollywood, is now with the Associated First National. Have you seen his masterpiece, "The Watchman"? It is an eight by ten colored photo. Trade supplied direct.

Ben Reade of the Fisher Studio, San Francisco, entertained several friends on January 10th. Dinner and cards were on the program. Ben lost as usual. He has a charming wife and baby.

H. E. Roberts, formerly of Grants Pass, has opened a studio in Sanger, California.

Announcement

We have received enquiries from our readers from time to time regarding the Raylo Process and the prospects of obtaining the sensitized materials to enable them to do the work at home.

An interesting announcement in reference to this matter has just been received from the American Raylo Corporation.

They are now prepared to deliver the bichromated gelatin color sheets and other apparatus necessary for making color prints from Raylo negatives. By a simple operation the color sheets can be sensitized immediately before being used for making prints. This change in policy will make it possible for professional photographers as well as amateurs to save time in sending negatives to the New York Laboratories of the American Raylo Corporation for printing, as has been required heretofore.

Congratulations

New blood of the proper kind is always healthful to a business. It spells success.

This is true regarding the C. F. Palmer Company, formerly A. A. Bailey, Jr., Photographic Supplies, Lipman-Wolfe Building, Portland, Oregon. The firm under the active management of Claude F. Palmer, who was connected for some years with the Pike and O'Neill Company, Portland, is branching out on a much larger scale. We are glad to hear this news and congratulate them.

Announcement

The friends of Mr. H. E. Burns, the well known photographic salesman, formerly with Marsh and Company, will be glad to know, that he now has charge of the Kodak Department of the Sun Drug Company, Third and Market Streets.

Mr. Burns will carry a representative stock of American and European cameras and supplies and will be glad to meet his friends at all times.

Announcement

The Foto Shop, John H. Becker, Proprietor, Milwaukee, Wis., announces that they have moved to a larger and more modern store. The accommodations of their new store will enable them to take care of their rapidly increasing business, and to give even better service to their many patrons.

We always enjoy hearing news of this nature and wish them—Success.

DETROIT CAMERA SHOP 1923 PICTORIAL CONTEST

Detroit, Mich.

All prints hung in Main Public Library Assembly Room During Thanksgiving week.

Judged by R. Poland, J. P. Wicker and G. Hance.

The prize winners and honorable mentions awarded are as follows:—

First Cup—Print No. 10, Fred Doudna, points received 14.

Second Cup—Print No. 29, W. E. Taylor, points received 14.

Third Cup—Print No. 37, E. Schaefer, points received 11.

Fourth Cup—Print No. 67, A. P. Wigle, points received 9.

Notable Visitors

Two notable visitors to our city, Mr. and Mrs. Mose Grady, Seattle, Washington, attended the monthly dinner and meeting of the Photographers' Association of California, held Monday night, January 14th.

After the dinner, Mr. Grady gave a very interesting talk on the photographic activities of the Pacific Northwest. He invited the California Association to join with the Pacific Northwest in the Convention to be held at Portland, Oregon, this year. He assured the members that the logical time had arrived for the entire Pacific Coast to join together in one greater Association, with greater benefits to all.

Mr. Grady had the spirit of the meeting with him and his eloquence certainly paved the way for an organization such as he described.

Applause greeted Mr. Grady at the conclusion of his splendid talk.

Another Notable Visitor

Another notable visitor and guest at the dinner was Mrs. Ednah M. Morrison of Visalia, California. Mrs. Morrison made a hit with her after dinner talk. She outlined the work that the Central California Photographers' Club was doing, and displayed a decidedly novel place card that was used at the last dinner they held. (See copy of place card below.)

Mrs. Morrison was heartily in favor of the proposal made by Mr. Grady that the entire Pacific Coast band together to form one large organization. She stated her views very clearly on this point to the members present. Judging by the applause at the finish of her talk, the members agreed with the sentiment she so ably expressed.

PLACE CARD, C. C. P. CLUB

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

The Australian Salon of Photography, 1924

This is the first International Salon to be held by the Photographers of Australia. Pictorial Photographers in America should certainly get behind these workers and help the good cause along, by sending prints to the Salon.

Entry Forms for this Salon can be obtained from Camera Craft.

California Camera Club
January 15 to February 15

An Exhibition of Bromide Enlargements by one of our own, Karl A. Baumgaertel, will be placed on the Club walls. Friends as well as members are invited to see this display.

C. A. LOVE, Chairman,
Print Committee.

News of the Brooklyn Institute for Dec.

During December there was an interesting one-man show by Arnold Genthe at the Brooklyn Institute. Among the portraits shown was one of Eleanora Duse, the famous Italian actress, the first picture she has had made in twenty years. Other recent portraits shown included Mrs. Robert Goelet, Chaliapin, George Luks, and a group of famous Russians who were all in America during this last season. A high-key study of Margaret Severn dancing in the surf and a study of "L. W." in a dancing pose attracted attention among the dancing subjects. There were also included some lovely child portraits and a group of Dr. Genthe's scenes of Japan and about New Orleans.

In connection with his regular classes in the Rudiments of Photography, Mr. Zerbe continued his series of public demonstrations with two on the Kallitype Process and Decorative Photography. They were, as is always the case, well attended.

Miss Sophie L. Lauffer's class, at its monthly meeting for portraiture study, enjoyed, with the use of other models, one of the dancers from Miss Moller's School for Dancing.

Chicago Camera Club
A LITTLE BIT OF HISTORY

Inquiry is often made as to the origin and history of the Camera Club, so here is a brief outline:

In 1904 the Chicago Society of Amateur Photographers—then housed in the Art Institute—disbanded, and a few of its members organized the Chicago Camera Club and secured Room 212 in the Northwestern University building, where lockers were installed under an oak bench running around three sides of the room, and a dark room was erected in one corner.

The birthday was February 14, 1904, and the infant was duly incorporated under the laws of Illinois on February 19 of the same year. Dues were fixed at twelve dollars per annum with no entrance fee.

The following year, a small room next door was also secured and used for dark rooms and workroom, a window being cut between the two rooms so that the stereopticon might be operated from the smaller room.

These small quarters sufficed until 1906.

In these rooms the Clubs had its "ups" (pictorial) and "downs" (financial) until 1912, when it moved to 329 Plymouth Court, where, on the second floor we established quite a nice home.

In 1915 the Club moved to 612 South Michigan Avenue, and about a year later, to 616, next door, where we had a workroom in the basement and a studio on the seventh floor.

The next move was to the present quarters, where our compact and convenient home was established in 1919.

International Photographic Association

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St. Berkeley, Calif.

John Bieseman, Director Post Card Albums, Hemlock, Ohio.

Lovic Meredith, Director Stereoscopic Division, Rupperttown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

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Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1754 Laurel St., Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 408, Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

ALBUM DIRECTORS

Eastern Division, No. 1: Under the direction of Chas. F. Rice, P. O. Box 245, Mamaroneck, N. Y., comprises New York, New Jersey, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Delaware, Virginia, West Virginia, Kentucky, Indiana, Ohio and Michigan.

Western Division, No. 2: Under the direction of P. Douglas Anderson, Room 413 Claus Spreckels Bldg., San Francisco, Calif., comprises California, Oregon, Washington, Idaho, Nevada, Utah, Montana, Wyoming and Colorado.

Southern Division, No. 3: Under the direction of Frank Reeves, Stamford, Texas, comprises Florida, Georgia, North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Louisiana, Arkansas, Oklahoma, Texas, New Mexico, and Arizona.

Northern Division, No. 4: Under the direction of Leonard A. Williams, 622 Second Avenue, St. Cloud, Minn. This division comprises Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota .

NEW MEMBERS

5301—Paul E. Kershner, 417 63rd St., Oakland, Calif. 4x5, 5x7, 2¼x3¼ of scenery from Lake County and general scenery around Oakland, Monterey and home flashes; for ocean views, cliffs, and anything of general interest. Class 1.

5302—Robert J. Hopkins, Box 496, San Mateo, Calif. Class 2.

5303—Daniel Thwaites, 520 Goers Hill St., Archbald, Pa.
Class 2.

5304—Cyrus R. Phelps, Route 1, Danbury, N. H. 5x7 or smaller, of scenery—water, mountain, sunset, sunrise, etc.; for similar scenes or anything pertaining to nature, except portraits. Class 1.

5305—Dr. J. A. Dodson, 14 W. 2nd St., Maysville, Ky.
3¼x4¼ and 3¼x5½ of travel and genre; for genre principally. Class 1.

5306—Ens. McF. W. Wood, U. S. S. Tennessee, c/o Postmaster, San Francisco, Calif.
Class 3.

5307—Rudolph Ruthofer, Box 31, Tillamook, Ore. Class 2.

5308—J. C. Broadhurst, Hotel Winchester, San Francisco, Calif.
Mixed sizes V. P. to 5x7 of mostly landscapes; for landscapes and parks—outdoor prints. Class 1. At present I have very few negatives with me and can only exchange 2¼x4¼.

5309—Rae Galusha, Box 64, North Creek, N. Y.
2¼x4¼, 3¼x5¼ and 5x7 of both winter and summer views of the Adirondack Mountains; for views and anything of general interest. Class 1.

5310—James H. Sexton, Glendale, Arizona.
5x7 of Arizona views (double weight); for Indian, pretty bits of scenery, genre, etc. Class 1.

5311—W. A. Massey, 1022 S. 8th St., Goshen, Ind.
Vest Pocket and 5x7 of water scenes, street scenes, views of beautiful homes and landscapes; for general views or anything of interest. Class 1.

RENEWALS

4730—A. Araiza, Box 10, San Luis Potosi, Mexico. 2¼x3¼ of street scenes, typical interiors, children, landscapes, etc.; for anything first class. Class 1.

4865—H. Cleve Burr, P. O. Box 372, Auckland, New Zealand.
V. P. to 3¼x4¼ of general views of New Zealand; for beach scenes, genre, and general photos of interest. Class 1.

4891—Hugo Koehn, 12 Stiles St., Houston, Texas. Desire to exchange only scenes and genre. Class 1.

5061—Carl Kruger, Big Stick Lake, Sask, Canada. Class 2.

5158—Henry A. McGinn, Dixon Cor's. Ont., Canada. 3¼x4¼ and smaller of landscape and things of general interest; for the same. Foreign correspondence invited. Class 1.

5253—H. N. Delmonico, Shawattans Power House, Prince Rupert B. C., Canada.
Views of Northern British Columbia and Indian life, also a good collection of miscellaneous subjects which I will exchange for anything of pictorial interest. Am interested in figure studies, both nude and draped. All letters answered. Class 1.

5298—F. A. Carey, 1223 Oak St., Columbus, Ohio. 3¼x4¼, 2½x4¼, 1⅝x2½ of views; for anything of interest. Class 1.

Our Book Shelves

Birds: Their Photographs and Home Life.

A. H. Cordier, M. D. Dorrance. 243 pages. $4.00.

Now that a fair percentage of enthusiastic amateurs are specializing in Nature pictures, and especially in birds it is presumable their interest will go deeply into the habits, antecedents and other minutiae of bird life. This generous sized book not only deals with the subject exhaustively but in an interesting way and the illustrations are liberally distributed throughout the volume.

A knowledge of the habits, the seasonal migrations, and other data pertaining to birds should also be of great assistance to the photographers who specialize in this subject and to them the book will need no recommendation.—S. B.

British Journal Photographic Almanac

The 1924 edition of the Almanac has just reached our desk. A large percentage of the 812 pages is devoted to advertisements and this section is one of its most interesting features.

The literary matter contains a very complete list of photographic processes and formulas. In addition to the many instructive articles for amateurs there is a long treatise by the editor on—Using a Hand-Camera. This is especially interesting to the beginner in photography.

To those who get the Almanac each year I do not have to recommend it as they already know its value to them. Others who purchase it for the first time certainly have a treat in store.

Published by H. Greenwood & Co., London, W.C.2. American Sales Agents: Geo. Murphy Inc., 57 East 9th Street, New York. Price, paper $1.00, cloth $1.50.

P. D. A.

How To Use Your Mind

Harry D. Kitson, Ph. D. J. B. Lippincott Company. 249 pages. $1.50.

The title is just a bit formidable, and may impress our readers as apart from the mission of this magazine, but photographers are essentially of the mental type: their preferences are for pensive matters: and a vast number of them are parents, students, and professional men. So this volume is pertinently reviewed on these pages.

A more readable book on an abstruse subject were hard to conceive. Note Taking, Formation of Study Habits, Active Imagination, First Aids to Memory, Concentration of Attention, Interest in a Subject, Effective Study—these sub-heads taken at random are alluring and promise much that is interesting and valuable, and the promise is richly fulfilled. We commend the book to any and all, and confess we have profited greatly by our reading of it.—S. B.

MODERN DEVELOPMENT

By Frank R. Fraprie

No. 11—Modern Development is a welcome addition to the Practical Photography Series of text-books on photography.

The manual is well written, not too technical, and is a practical treatise on the modern methods of negative development.

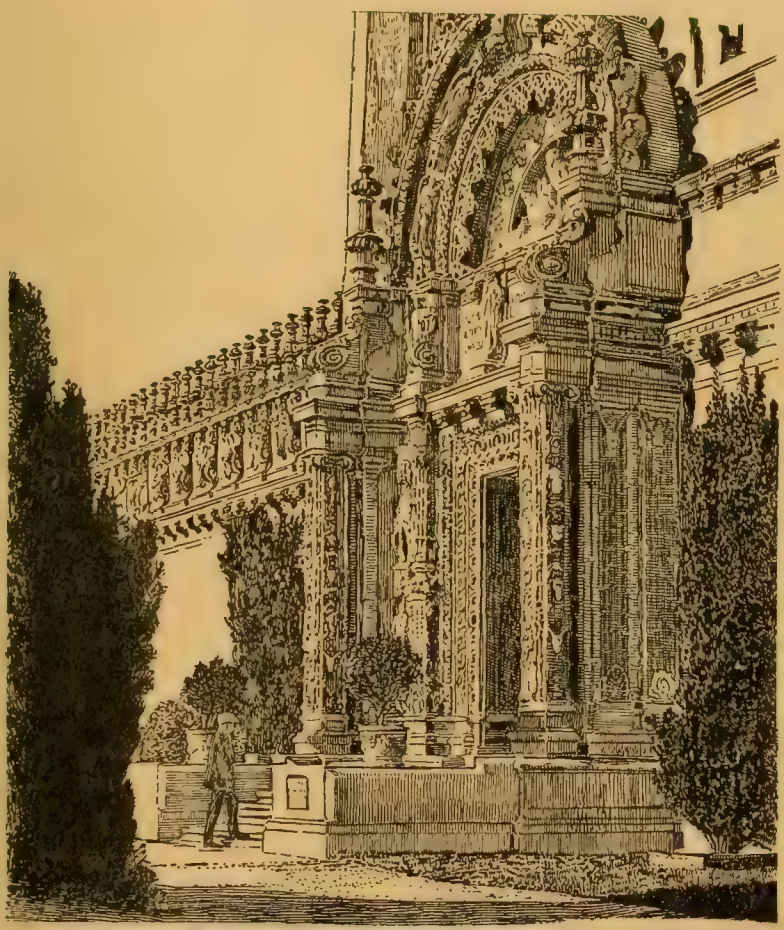
It describes in detail the methods used to get the best results from factorial, thermo and tank systems of developing. The list of formulas and the directions for using them is very complete.

Published by the American Photographic Publishing Co., Boston, Mass. Price, paper 50 cents, cloth $1.00.

P. D. A.

XXI No. 3 MARCH, 1924 Price 15 Cen

CAMERA CRAFT



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CAMERA CRAFT

A Photographic Monthly

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The Association has just one idea—

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What percentage of your business is transient trade attracted by your location?

What advantage does a ground floor studio possess?

Why have the annoyance of show window maintenance if you acknowledge location does not attract trade?

Why are studios in the residence district not popular in California, especially in San Francisco?

These questions will be discussed at our next meeting on the **10th of March.**

The discussion at our last meeting was a lively one and the photographers present learned much to their advantage.

Date .....19.....

I, hereby, enclose TEN DOLLARS for membership in the PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA for one year beginning October 1st, 1923.

I, hereby, agree to support the Constitution and By-Laws of the ASSOCIATION, observe its code of ethics and in every manner promote the welfare of the professional photographer.

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Our ASSOCIATION means much to you as a professional. The strength of the wolf is the pack and playing a lone hand will not benefit you. The larger the organization the greater are the benefits to be derived from membership in it.

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N. B.—Your dues include subscription to CAMERA CRAFT, our official organ.

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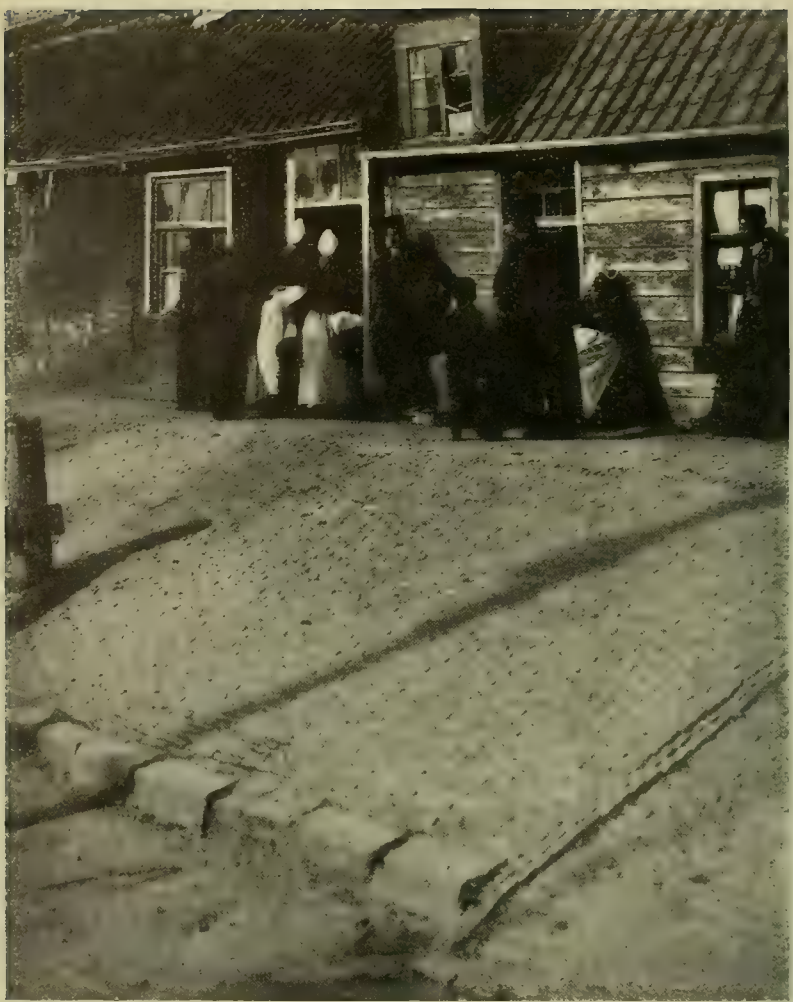


DUTCH FOLKS

Los Angeles Salon
Pittsburgh Salon
San Francisco-Oakland Salon

By L. A. GOETZ
Berkeley, California

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

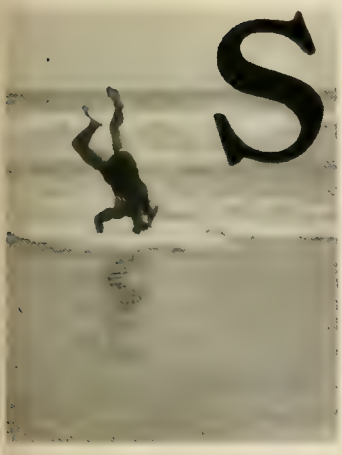
VOL. XXXI MARCH, 1924 No. 3

The Photographic Department of a Modern Railroad

By C. H. Thomas

Photographer for the Southern Pacific Company

With Illustrations by the Author



SURF BOARD RIDING DE LUXE

SO many of my brother Photographers are under the impression that Photography for the Railroads, is limited to the taking of wreck scenes and crossing accidents, that I have no doubt a few words about a modern Railroad Company and its Photographic Department will be of interest to the readers of Camera Craft.

Located in the Annex Building of the Southern Pacific Company, at 65 Market Street you will find a modern photographic plant, supervised by Mr. E. W. Irwin. Here we have a complete motion picture laboratory, operated by Loyal Himes. Considerable floor space is allowed for a dark room, drying and assembling room, and also an auditorium, for the projection of the finished pictures, capable of seating nearly 100 people. We also have two well equipped dark rooms for general photographic work. Two large photostat or copying machines take care of our legal copy work and the reproducing of monthly or weekly reports, disputed waybills, tickets, etc. Original copies are very seldom sent out in cases of dispute over tickets, bills of lading, etc.; always a photostat copy.

Photographing crossing accident scenes form only a very small percentage of our labors. This class of work calls for a great deal of careful detail work and a good knowledge of photography, for not only must the photographer produce good clear results, but quite often he must accompany his results to the court room and be able to answer many technical

THIS IS THE LIFE
"GIMME"

By C. H. THOMAS
San Francisco

DATA—5x7 Graflex Camera fitted with B & L Tessar Lens, Series 1c f4.5. The Eastman Portrait Film was tank developed in Pyro Metol.

STANDARD SIGNAL MOUNT
STANDARD TRACK

By C. H. THOMAS
San Francisco

DATA—8x10 Eastman View Camera fitted with 9½-inch Goerz Dagor Lens f6.8. Exposure 1/5 second at f32. The Commercial Ortho Film was tank developed in Pyro Metol.

questions regarding the construction of lenses, cameras and the methods used to produce his pictures. Lack of knowledge in this respect may result in the pictures being thrown out of court as evidence.

When a crossing accident occurs, we usually make about ten standard pictures; first, showing the condition of the road at the crossing; close ups of the approaching roadway on the course of the automobile; and several views showing auto driver's view of crossing and track from various distances. Measurements are taken of camera position, and although sometimes exact in every detail, we always add the word approximate when giving evidence in a courtroom.

Wide angle lenses are never used for this class of work, as it gives the opposing attorney an opportunity to claim that your picture is a distorted view; many pictures are worthless as evidence through this fault.

Enlarged pictures are used to demonstrate to the jury, and we have found that P. M. C. Bromide Paper No. 7 or a rough surface paper is far superior to a glossy paper. The glossy surface reflects so much light that it cannot be viewed properly at a short distance by the entire jury.

Various Departments Make Considerable Use of Photographs For Educational Purposes

The Southern Pacific Company has for many years put forth special efforts to learn the various causes for loss and damage to freight and how to prevent them. In this work both still photographs and lantern slide lectures have played an important part. If, for instance, a car of automobiles arrives in a damaged condition, a member of our Freight Protection Bureau is notified about it. Photographs are made to help determine the cause. Sometimes it may be a weak brace holding the car in place or insufficient nails to hold the braces. Whatever the cause we have found that by broadcasting pictures, damage along this line has been reduced considerably.

Our Maintenance of Way Department, wishing to standardize the method of keeping up signal mounds and the proper method of ballast spread between tracks, used picture No. 1 to great advantage. Picture No. 2 represents a piece of standard track. Half tones are made of these and sent to the various roadmasters and section foremen.

A considerable amount of copying work is done for various departments. This class of work is produced at a greater saving in time and money than would be the case if it were done by the average commercial photographer.

Photographs for Land Valuation Department

In this line of business one has to be ready at a moments notice to go to any part of the system from San Francisco to El Paso, Portland and Ogden, sometimes for a long period of time.

The writer recently finished a trip which lasted several months. During that time more than two thousand exposures were made under various climatic conditions, starting with sunshine in California, then through

By C. H. THOMAS, San Francisco

WHAT IS IT?
COMIN'?
ONE AGAINST MANY
TREASURES AND HEALTH
THE CASTLE WALL
A DEAD HEAT

DATA—5x7 Graflex Camera fitted with B & L Tessar Lens, Series 1c, f4.5. The Eastman Portrait Film was tank developed in Pyro Metol.

SURF BOARD THRILLS By C. H. THOMAS

heavy snow in Nevada and Utah, and on to Oregon where many of the exposures were made during a rain storm. With good liberal exposures some splendid negatives were obtained despite the various handicaps encountered on this trip. Only fifteen of these exposures were actual spoils and five of these were caused by accidental fogging of the film. Commercial Ortho films were used, and exposures varied from a twenty-fifth of a second to as much as 10 minutes, all outdoor work. These pictures were made for the Land Valuation Department, and were used to illustrate a report to the Interstate Commerce Commission. They told their story so well that many more scenes will be photographed to accompany a larger and more exhaustive report on the valuation of company property.

The company publishes a 32-page monthly magazine, and pictures play an important part in this publication. Quite a number of these pictures are produced by our own staff photographers. Many of the daily newspapers and pictorial news agencies are supplied with topical news pictures during such times as Prune Week, Apple Week, etc., unusual events that interest the public, in fact, almost every branch of news photography is handled.

Several pamphlets are published by our Passenger Department which calls for a continual stream of new and up-to-date pictures.

I had a very interesting time this summer getting some new studies of sea and beach scenes.

THE SAND CASTLE QUEEN AND HER COURT — By C. H. THOMAS

Quite a little diplomacy has to be used in getting pictures of children, and here I might mention that my wife helps me to a great advantage. First of all we bought several small shovels and sand pails and then started to dig up enormous piles of sand. Slowly and surely we gained the confidence of several kiddies (see reproduction "The Sand Castle Queen and Her Court") who willingly helped us in our efforts to pile up the sand. After about two hours of this my wife and I had made so many juvenile friends that even the reporter of the local newspaper became interested, and gave us a short writeup in the following morning's paper. Later on we firmly established our friendship with the kiddies by providing a glorious feast of ice cream and popcorn. After this feast I started to make some pictures and managed to get some very pleasing groups of them playing on the sand, surf board riding, etc. While making these pictures one of the kiddies became so friendly that he finished up by emptying a bucket of wet sand into the hood of my graflex camera.

Picture marked No. 5 was secured near American, California, and is known as the Giant Gap of the American River Canyon. This view can be plainly seen from the depot at American. The walls of the canyon are about 2500 feet deep and the American River which flows through it is about 40 feet wide. Considerable traveling had to be done to make this picture.

After about an hour's wagon ride we had to hike through heavy brush and drop down about 500 feet.

C. P. HUNTINGDON NO. 1 AND
A MODERN PASSENGER ENGINE

By C. H. THOMAS
San Francisco

When we arrived at our location, although a sunny day, the purple haze was far too strong for the class of negative that we needed. A beautiful soft effect could have been obtained, but most of these views are used in small pamphlets and have to be reduced in some cases to about two or three inches square. Consequently I waited for a possible chance of the haze clearing. After a wait of about 30 minutes we were rewarded. By the use of a Panchromatic film and a K 3 filter we were able to get a very clear and sharp result. Eastman Pyro Elon tank formula was used for developing the film.

In conclusion, I might state that our staff, consisting of five experienced men, have been with the company for several years, and will cheerfully give any photographer any information as to the photographic possibilities on any part of the Southern Pacific Company's lines.

Editor's note: The Long Beach Morning Sun gave Mr. Thomas and his pictures—produced in the foregoing article—the following writeup in their paper:

Long Beach to Have Picture in Espee Magazine

C. H. Thomas, official photographer for the Southern Pacific Magazine, a monthly publication devoted to the interests of the employes and patrons of that railroad, spent several hours on the local beach Thursday taking pictures to be used as cover designs for that publication.

About thirty pictures in all were taken, including action pictures of Roy Crawford riding his Hawaiian surf board and typical beach scenes in which kiddies played a prominent part. "Junior" Preston and Katherine Sylvester, diminutive vaudeville artists, were among those in the various group pictures.

The pictures were to have been taken earlier in the week but due to the foggy weather, the right light conditions could not be obtained until yesterday.

The magazine has a circulation from Spokane to Salt Lake City and the Long Beach pictures will graphically depict the advantages of this city as an amusement resort, according to Mr. Thomas.

GIANT GAP,
AMERICAN RIVER CANYON

By C. H. THOMAS
San Francisco

DATA—6½x8½ View Camera fitted with 9½-inch Goerz Dagor Lens f6.8. Exposure, one second at f22 with K3 Filter. Light, Sun shining through haze. The Eastman Panchromatic Film was tank developed in Pyro Metol.

Back Porch Portraiture

By J. G. Pratt

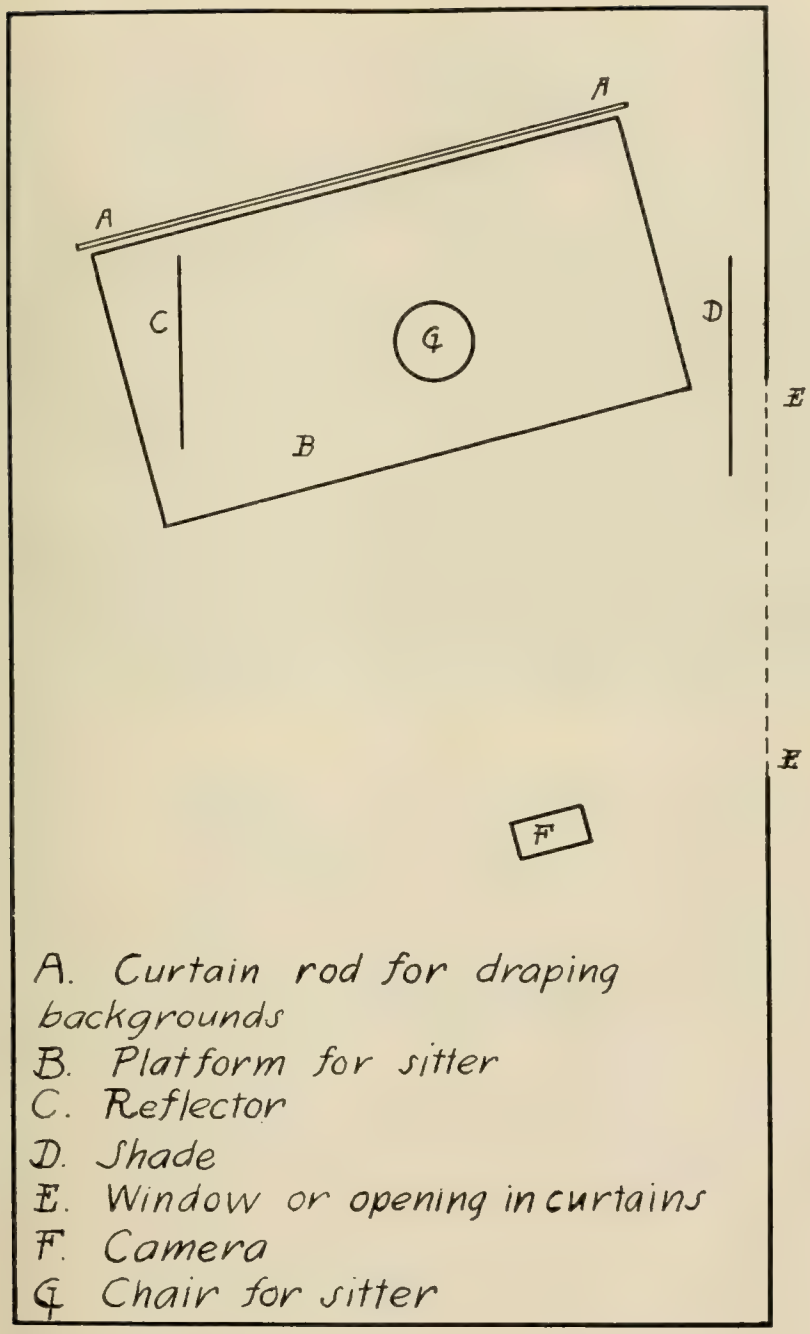
With Illustrations by the Author

Most amateurs attempt difficult portraiture in ordinary rooms, with consequent harsh lighting and lengthy exposures, little knowing that the old back porch, especially the one used for sleeping purposes, with a little fixing up, possesses nearly all the possibilities of a well-lighted studio. In such cramped quarters the poses may be limited, and the different lighting effects may be somewhat restricted, but you will be surprised at what can be accomplished in the matter of home portraiture, and with quick exposures which are especially adaptable for child studies.

First, you will require a background, and for this purpose a pole or curtain rod, indicated in the diagram at (A), should be suspended about six feet from the floor, over which portieres or other drapery can be hung. If one wishes to go to a little expense, excellent backgrounds can be obtained for five or six dollars, and one of the gray cloud effect is especially desirable as it will give a highly professional atmosphere to your photographs. A platform (B) about 4x6 feet and 8 or 10 inches high, should be constructed in order to raise the sitter above the line where the background touches the floor. This is highly important as the camera is about on a line with the sitter's head and otherwise the background would hardly reach below the waist. A carpet or rug can be thrown over the platform temporarily, or can be tacked on permanently as desired. A white reflector (C) should be set up to light the shadow side of the sitter, and an opaque screen should be erected at (D) to keep the direct rays of the light from reaching the face. Two tripods can be constructed from strips about 5 feet long, with legs at the bottom of each. A piece of white sheeting 2x4 feet, with a stick tacked on each end will answer very well for the reflector, and an 18-inch square of cardboard can be fastened on the other stand at the proper height with a thumbtack.

We now come to the curtains and the improvised skylight. Back of the background should be light-tight, although the light canvas curtains ordinarily used on a sleeping porch will answer very well otherwise. These should all be let down except a section about five or six feet square slightly to the front of the sitter (E), and if the exposure be a southern one, the direct rays of the sun should be softened down with white sheeting or tracing cloth.

Now place your subject in position, preferably in a chair although there is ample room in the setting for children to be taken standing, and you will notice that you have obtained a beautifully subdued lighting, although it is much stronger than it looks and on bright days should not take over a second exposure at stop 8 for a fully-timed negative.



BACK PORCH DIAGRAM

By J. G. PRATT

BACK PORCH STUDIES By J. G. PRATT

One does not need an 18-inch F.4.5 portrait lens in order to get good pictures, although from the professional standpoint such an outfit is of course to be desired. If the lens is of short focus, say six or seven-inch, the camera can be placed far enough away from the subject to prevent distortion, and the desirable portion of the negative can be brought up to the proper size on the enlarging easel. The lens, however, in portrait work should be left wide open in order to give as much softness as possible. In his back porch studio the writer rarely uses anything but a 5x7 camera and an 8-inch rapid rectilinear lens, although for some children who just won't stay still, a 3¼x4¼ Graflex is used to better advantage, as excellent photographs can be taken with the F.4.5 lens in 1/30 of a second. In both cases, however, the finished prints are generally made in the enlarging camera.

There is probably no other phase of photography which is as teeming with human interest and appeal as child portraiture. The field is large, and if the amateur will but take a little trouble in fixing up his home studio, he will not only be rewarded with a pleasant pastime, but can easily make that old back porch do its bit.

BACK PORCH STUDIES — By J. G. PRATT

Amidol Developers That Keep

By Karl A. Baumgaertel

Our old friend Amidol which has many good points to recommend it especially as a developer of Bromide prints and enlargements, has one serious drawback, that is, it oxidizes very quickly, making it necessary to mix a fresh batch every time one has some work to do.

To people like many of my fellow members of the California Camera Club and myself, who needs must earn their bread and butter during the day and who have only a few hours now and again to follow their photographic hobby, this represents quite a problem, as every minute counts and the time used to mix a batch of developer could be used to advantage otherwise.

Now as none of the developers which permit the use of stock solutions gave me satisfactory results except Rodinal, which is rather expensive, and as I am subject to Metol poisoning and therefore cannot use any of the popular M. Q. formulas, I have done much experimental work to find an Amidol developer that would keep for a few weeks at least.

I tried practically every formula recommended in the various photographic publications for Amidol developers using the various preserva-

tives recommended. However, none of them were satisfactory, as in some cases the preservatives were chemicals which were hard to procure or in most cases the print quality was not satisfactory.

One of the developers recommended which I did not try was the following as given by Dr. R. Namias in Progreso Fotografico:

Amidol	40 grains
Metol	8 grains
Water	17½ ounces
Sodium Sulphite, dry	95 grains
Pot. Bromide	16 grains

Or use as a restrainer Saturated Solution Boric Acid 1/15 part to one part of developer.

As the above developer required the use of Metol as a preservative and, as I stated before, I cannot use Metol, I merely made a note of this formula in my little black book and thought nothing more of it until some time ago I read an article in which the writer stated that Hydroquinone also acts as a preservative in certain solutions but in a somewhat lesser degree than Metol, thereby making it necessary to use a larger quantity of Hydroquinone. This immediately started me to experiment and using Dr. Namias's formula as a starting point, I tried many variations, using Hydroquinone in the place of Metol, until I hit upon the following formula which I found very satisfactory:

Water	16 ounces
Sodium Sulphite, dry	85 grains
Amidol	35 grains
Hydroquinone	15 grains
Pot. Bromide	12 grains

This formula gives good clean prints with rich transparent shadows and full detail in the highlights and will keep for at least three or four months even after being used.

Recently I have been working with Adurol which is again on the American market, and in trying this developing agent with Amidol, using the Adurol in the place of Metol or Hydroquinone, I evolved the following formula which I found to be satisfactory in every respect:

Water	16 ounces
Sodium Sulphite, dry	90 grains
Amidol	35 grains
Adurol	15 grains
Pot. Bromide	10 grains

For those who are not acquainted with Adurol I would state that this is a developer quite similar to Hydroquinone in its actions and results, but it is more soluble and keeps better. It is also less affected by low temperature.

The Amidol-Adurol formula as given above will give full rich tones on any bromide paper, the tones being of a much warmer tone than

secured with straight Amidol; in fact, when using certain papers I find it gives beautiful rich brown-black tones. It is also one of the cleanest working developers I have ever used, and in the hundreds of prints I have made with this developer I have never seen a stain of any kind. I have in my locker in the California Camera Club a partially filled bottle of this developer which I use every now and again for a few prints at a time. It is now about ten weeks old and it is still going strong.

These developers also give very satisfactory results when used with chloride papers for contact prints. Dr. Namias tells us that the Amidol-Metol formula will give satisfactory results with plates. However, as I have a formula for the development of negatives, which is very satisfactory in every respect, I have never tried any of the formulas given as negative developers.

Some Hobbies I Have Met

By Carroll H. Bunch

With Illustrations by the Author

It is said, and we shall presume it is true, that we all have some favorite hobby, that is, we prefer to pursue some certain amusement, some particular recreation, or some sport, above all others. You have your favorite hobby, Bill Jones has his, and I have mine. Yes ,we are a nation of hobby hunters. But in this particular instance we shall deal with some photographic hobbies, for the simple reason that the average individual subscribes for or buys photo magazines because he is interested in photography. If he were interested in "Tin Lizzies" he no doubt would be a regular reader of some magazine devoted to motoring. So much for that. Now we shall proceed to get back to our subject and relate our little tale. As was said at the beginning of this story, all of us, especially photographers, have, have had, or intend to have, one or more particular hobbies.

Take "Smith" for instance, that fellow simply can't get away from snapping landscapes, why he has been known to tramp miles upon miles just to make a photographic record of some beautiful hills and valleys. Yes, old friend Smith is a landscape bug.

Then there is another buddy of mine whom we shall call "Sam." That boy is the darndest fellow you ever saw over parades; whenever Barnum or Ringling or in fact any circus, big or little, comes to town you can gamble on Sam being right there on the scene with his old faithful Graflex. Why, last Armistice Day, the Legion put on a big parade, which must have been at least a mile long, and out on the curb with his focal plane machine was Sam, snapping to beat the band, yes, he is a parade bug and he has an album chuck full of beautiful parade pictures.

AMONG THE CLOUDS By CARROLL H. BUNCH

Let us also consider another camera fiend of my acquaintance; he has his hobby also, but I wager you couldn't guess in a year just what it is, but never mind guessing, for I shall put you wise immediately. Of course you have noticed crowds around bulletin boards, theatre entrances, the ball park gate, or the band stand during the Old Settlers Picnic? Well say, this fellow terms himself "The Photographer of Crowds." He has dozens of crowd pictures in his collection each neatly titled somewhat like this, "Senator M speaking in Central Park," "Watching the Score Board," or "Crowd on Opening Day," and so on. Yes, he photographs crowds and although an amateur he does a good job of it too.

Some folks delight in photographing wild bird life (H. T. Middleton for instance) which is a hobby that requires not only much skill but unlimited patience. While others can always be found exposing film or plates around bridges, steam boats, shore scenes, moonlight on the river, etc.

Of course we sometimes find street scene bugs, who prefer wet pavement pictures, or something like this, "Snowy day in January," "Snow Bound," "Main Street Looking East," and all that sort of thing.

Children offer mighty good subjects for the hobby hound, that is if you are a patient individual, and remember friend reader, if you desire some dandy kid pictures just saunter down the avenue some bright day with your small camera out of sight, watch your chance, act quickly, and you can secure the most charming kid pictures you ever gazed upon. Don't get them to pose, snap them unawares at their play, you know what I mean.

Flashlight pictures offer a delightful field for the person looking for a hobby. It is easy to learn, inexpensive, requires no hill climbing, and is a hobby that should be followed more than it is.

THE SEA PLANE

By CARROLL H. BUNCH

No doubt I could go on and call your attention to many other favorite pastimes of photographers, both amateur and professional who can't resist the temptation to photograph buildings, machinery, dogs, cats and numerous other subjects, but I shall merely mention those and briefly relate my favorite hobby. When it seemed as though most all other subjects were being photographed to death, as it were, I began to look "up" for a hobby to follow for a while. Aeroplanes are my hobby, and I never miss an opportunity to make a film record of an aeroplane or seaplane. Photographing automobiles and trains are easy compared to shooting a plane going a hundred miles or so an hour; the writer has tried all of them and knows whereof he speaks. However, it is an interesting subject, and if you can stand a few failures without getting discouraged, why try it, otherwise you had better stick to objects that don't move so swiftly.

Yes, we are a nation of hobby hounds and I, like all the rest, have mine, although mine is probably a little different from many of them.

Illustrations—

"AMONG THE CLOUDS" 3¼ x 5½ Speed Graphic negative, exposure /250 sec. against bright light from concealed sun, 8:30 A. M., September. Printed deep on Cyko to give effect to clouds. Taken from top of building.

"THE SEA PLANE" No. 3 Folding Pocket Kodak, negative, exposure /50 sec. plane in motion, 10:45 A. M. Stop F .16. Printed on Azo F.3.

Note—This is the Seaplane N.C.4. which flew across the Atlantic Ocean in 1919.

Government Photography

By R. L. Davis

Address Given at the 1923 P. A. of A. Convention

On various occasions we have been called upon to decipher illegible documents and papers. These have been usually cases in which the writing had been partially or completely destroyed so far as being detectible by the unaided eye, cases where forgery was suspected or secret writings with invisible inks.

The problem of deciphering damaged or questioned documents is about as old as the art of writing. In cases of suspected forgery or altered writings, the possible methods of attack have been well investigated and to some extent standardized. By means of the camera, microscope and chemical reagents it is often possible to detect alterations and additions to both handwriting and typewriting. (See "Questioned Documents," by Caborn, Lawyers Cooperative Publishing Company, Rochester, N. Y., 1910.) Damaged records and secret writings can often be deciphered by perseverance if the appropriate equipment is available. It might happen, however, that the destruction is so nearly complete or the "evidence" so fragmentary that success is not to be had.

Recently, the Bureau of Standards was requested by W. T. Ellington, Superintendent of the Mails, United States Post Office at Augusta, Georgia, to attempt to decipher papers which had been charred in a fire which caused considerable loss of property in that city. The charred samples, (three in number, approximately 8 by 10½ inches) had obviously been subjected to heat in a closed vessel, such as a safe; the paper having been converted into black sheets of carbon and not to ashes, as would have happened had they burned in an open container.

With casual observation no traces of the writing are visible, but under certain critical conditions of lighting very faint traces of markings can be seen. These traces are not, however, sufficiently clear to permit deciphering.

Procedure: Chemical

In some preliminary trials made on paper charred for the purpose, conversion of the iron salts contained in the ink into colored salts was tried. These were unsuccessful. In others, where the ink was evidently quite heavy, copies were obtained by using hydrochloric acid and potassium ferricyanide, as follows: A blotter moistened with a solution of potassium ferricyanide was placed on the back of the charred paper and a piece of plain white paper in contact with the face or written side. With a blotter wet with dilute hydrocholoric acid against a white paper the whole was placed in a letter press for several minutes. When successful, a reversed print of the writing appeared on the plain paper in a blurred blue color. However, the results led to the conclusion that such a method would be unsatisfactory.

Photographic

It has been shown by Russell, (Prof. Royal Institute, May 5th, 1899; also Journal Royal Photographic Society, November, 1908) and others that the photographic plate is sensitive to the action of certain gases and vapors and the action takes place without the exposure to light.

Certain woods, resins, freshly scratched metals, etc., if left in contact with the photographic plate for a sufficient length of time yield on development in the usual manner, characteristic markings or images. The necessary time of contact between the substance and the plate varies from an hour to months, depending on the activity of the material, the temperature and the kind or brand of photographic plate. The effects are ascribed to active gases or vapors freed from the material. On the other hand, the converse of these effects may be produced. Other gases and vapors which tend to prevent the liberation of the bromine of the sensitive salts of silver lower the sensitiveness of the plate, and when sufficiently strong may completely desensitize it.

For the first trial a sheet of the carbonized paper was placed between two "fast" photographic plates and kept in the dark for two weeks. On development a very perfect copy of both the writing and the printing was obtained. It appears that the carbonized paper contains gases that fog the photographic plate. Where the ink is present little or no effect takes place. Apparently the charred ink acts as a protective screen, hindering escape of the gas.

It is interesting to note that the writing on both sides of the charred paper appears in the print, that from the back being fainter than that from the face. Apparently the ink penetrates the paper so that its residue reduces the amount of gas escaping from beneath.

Choice of Photographic Materials

Plates

Photographic plates of sensitiveness usually termed, "medium" or "fast" are suitable for the purpose. However, the sensitiveness to light is no definite indication of the sensitiveness to charred paper. For example, Seed 30 and Seed 26X, the former being nearly twice as fast to light as the latter, have equal sensitiveness to the charred paper. The measured "densities" of the silver deposit are plotted as ordinates against the exposure times in days as abscissas. This density, which measures the blackening of the plate is defined as the logarithm of capacity. Capacity is defined as the reciprocal of the transmission. The shape of the curve closely resembles the usual characteristic curve. Very slow plates such as "process" are not suitable, as the exposure of 32 days show only faint action.

No attempt was made to determine the nature of the active material contained in the charred paper. It is quite likely that it contains products similar to those obtained by the destructive distillation of wood.

Films

Results obtained by the use of photographic films were surprising, as shown by the two types of emulsions selected for the test, namely: Eastman "portrait film" and "Eastman super-speed portrait film."

The portrait film showed no effect in 32 days. The super-speed portrait showed a very slight but interesting effect with a 16-day exposure and only a little better after 32 days. The reaction was just the reverse of that with the plates, the inked areas showing black on the films but clear on the plates. That is, with the films the ink is the active portion, the charred paper produces no fogging. It was also noted that the chemical fog of development is much lighter over the portions of the film covered by the charred paper as compared with the uncovered areas.

The results suggest that there are perhaps two kinds of gas given off, one kind by the charred paper and the other by the ink, both of which fog the photographic emulsion. The one from the charred paper, however, affects the plate more intensely than the film, while that from the ink is more active toward untreated films.

It was found that washing these films in distilled water for about five minutes, (see Walters and Davis article, B. S. Scientific Paper No. 422, for beneficial effects on the color sensitivity, obtained by washing panchromatic plates previous to using) followed by the thorough drying, gave results similar to those obtained with plates.

Papers

Photographic papers are not suited for this purpose. The following papers showed no effect after contact with the charred papers for two weeks: Azo, Artura, Valox, Photostat and Enameled Bromide. A sheet of solio paper showed no effect after a 60-day exposure.

The Effect of Time on Activity of the Charred Paper

As previously stated, three sheets of the charred paper were received and with these samples two weeks' contact was required with Seed 30 plates to produce a good printing negative. Later an entire ledger of the charred paper was submitted. With sheets of this only one week's contact with the same brand of plate was required to produce the same result as was obtained with the original samples in two weeks. It is natural to assume, therefore, that the active substance is gradually lost by exposure to air, the activity having dropped to one half in about two months' time. After this, however, the rate of depletion has dropped considerably, no appreciable further reduction in activity being observed.

Summary

An investigation for a method of deciphering the written and printed matter contained on papers which have been charred shows that good results may be had by the use of photographic plates.

The charred papers are placed in contact with the emulsion of fast or medium speed photographic plates and kept in this condition in total dark-

PORTRAIT MRS. JACKSON — By WILLIAM D. RAWLING

DATA—Home Portrait, made in room with two windows, both facing south. 3¼x4¼ R. B. Auto Graflex fitted with Goerz Dogmar Lens f4.5. Exposure, 1/15 second at f4.5, bright sun. The Eastman Super Speed Film was tank developed in Pyro Elon. Enlargement made on Portrait Bromide through diffused focus lens.

ness for a period of from one to two weeks. They are then developed in the usual manner.

It appears that the gases contained in the charred papers have the power to fog the photographic plate and that the ink acts as a screen, hindering the escape of the gas. That is, on development, it is found that the photographic plate has been blackened where it had been in contact with the charred paper except in those places occupied by the ink.

Films are not so well adapted for this purpose as plates. A much longer time is required, about two months, and the results are positive instead of negative. That is, with films the ink is the active portion and the charred paper inactive.

By washing a film in pure water for a short time and drying (in darkness) before placing in contact with the charred paper, similar results to those given by photographic plates are obtained.

Very slow plates, such as "process" and the enlarging and printing papers are not suited for the purpose because of the comparative insensitiveness of these materials to the gases.

Halo-Light

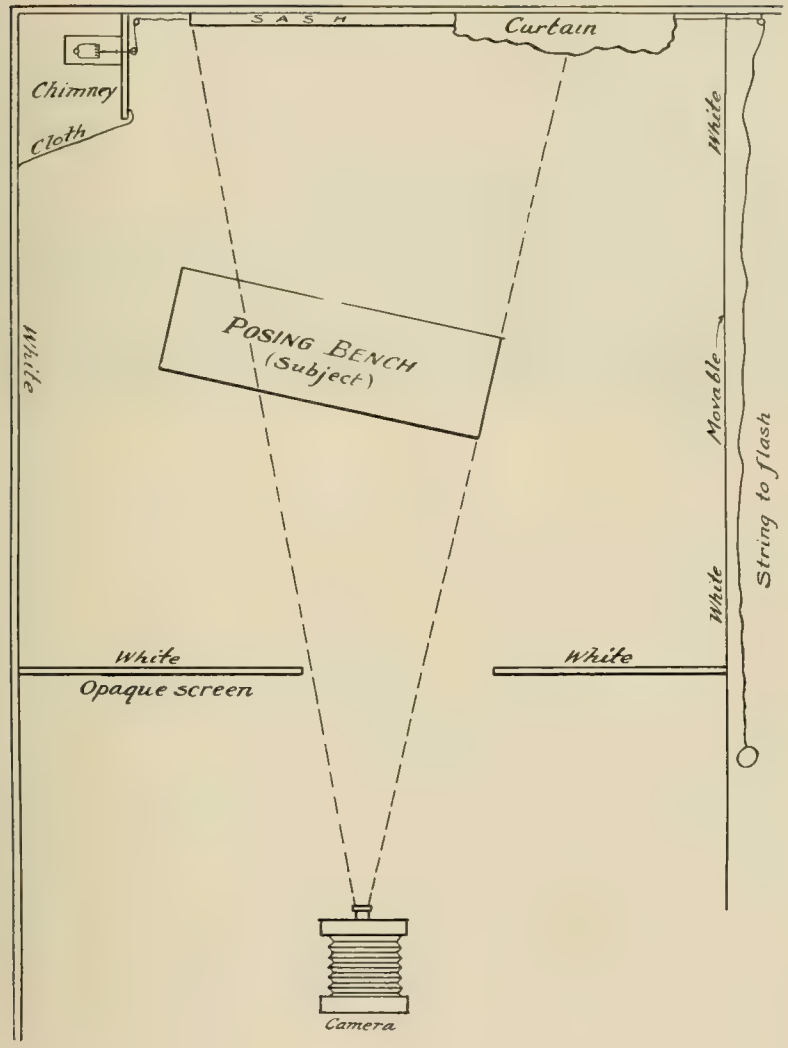
By C. V. Ashbaugh

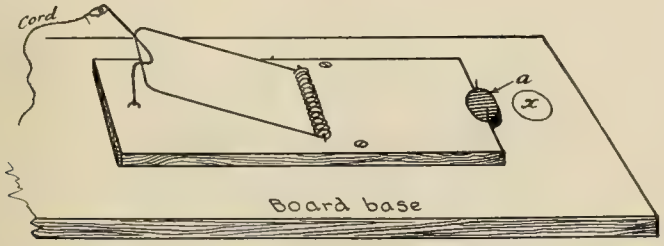
With Illustrations by the Author

Some of the friends of Camera Craft may remember an article on the merits of the flash, and methods of manipulation published a few years ago, wherein the author, among other things, gave his experience with ignitors. At that time he was searching for a perfect one, and I might begin this by saying that he is still engaged in that hunt. Where one has an electric house circuit at his command, most of the troubles in this connection vanish altho it is highly improbable that, with our modern electric illuminators, he would resort to flash-powder at all.

But my story is of the small town man who is off the circuit, my luck for years. With the fact that I seldom get to use old Sol, my hobby generally being ridden at night, it will be surmised that a skylight, expensive for a transient, would be of little use: Therefore but one method of lighting could be called to my assistance, which, thanks to our manufacturers, is far from bad, and I resolved to get something from it as much out of the ordinary as possible.

Flash-powder has, in some respects, advantages over any other means of illuminating a subject, and it is almost instantaneous; it can be controlled both as to width of beam, intensity and quantity; it is portable. On the other hand, and to be fair, its disadvantages might be mentioned: Its smoke muisance, danger of fire and accidents and, in my case, the uncertainty of ignition.





a - Small metal anvil on which cap rests
x - Where powder is to be placed

FLOOR PLAN

By C. V. ASHBAUGH

PORTRAIT STUDIES

By C. V. ASHBAUGH

If the patience of the reader will permit, I will state a few of the troubles in this respect that have thrust their leering faces at me when I was doing my utmost with a nervous subject:—Failure of the trigger to respond to pressure of any horsepower (generally trigger not set); cap falling off just as the subject was forcing that expression resembling the small boy's as the spark sputtered down the throat of his first cannon-cracker; cap spitting with no following "pomb" of powder; click of the hammer on the paper part of the cap, some joker having removed the spot of fulminate to the very outer circumference of the paper disc; or maybe a shower of beautiful stars from the spark metal as it was whisked across the file, falling everywhere but on the powder; or, when the "Hot-shot" and coil were used, a nasty snapping buzz as the sparks were shot into the powder,—a nerve-edging rattle remembered by most any subject as a burro remembers the whirr of a rattle snake,—and by the time that the topmost flakes of magnesium that were taking the brunt of the bombardment had worked themselves into a state of combustion, the subject, like the burro, had just begun to leave.

Here I shall describe the device I have finally settled upon, which, though giving a very good batting average, is far from my ideal.

One of the flat, wood-base, slap variety of mouse trap was commandeered and a little anvil placed at the point where the wire strikes hardest. Trap and anvil were then fastened to a small thin board to form a base. Through this was thrust two pins, their points coming through about one-fourth inch, close enough to the anvil to impale the cap thereon and hold it in position without their being struck by the descending wire hammer. The wire trigger that is used in the original trap to go over the swatter loop to the pedal, should be bent as shown in the diagram. This makes a little step to catch the swatter and hold it and at the end an eye

for fastening a string which is to be pulled when ready to fire. If the cap is properly placed and the powder in contact, I will not hesitate in claiming 85 per cent for it.

Having gotten over the uncertainty of the source of my light to a fair extent, I began to look about for something a little better than the regulation quarter-front lighting, although I have made some very passable things with this angle, and for good plain work it is not to be despised. In some of the better class of work I noticed the tendency toward the double lighting, or highlights in combination. This was very contrary to my early teaching, for I well remember the rule that light (in a picture) should have but one source, or come from one direction only, and to have two highlights in one eye was considered a real crime.

The results, however, were very pleasing, and I could but say, "Why not? It is often seen in nature." I attempted to get this by two simultaneous flashes so placed that I would catch something like the "movie" effect, but the simultaneousness was but theory in my case as I never was able to depend on any team work between the apparatuses. It was the failure of one to go at all—unknown to me until after development—that gave me the idea to dispense entirely with its services, and I then worked out the reflecting or indirect method of lighting about which this article is supposed to be.

In the corner of my makeshift studio which, by the way, is a room about 16x20, (a part of an old barn), I built a chimney. It was made on three sides of one by twelve boards, tin lined, beginning about three feet from the floor and extending into the loft above, which would take care of the smoke. The front of this chimney, or the side next the camera, was made of fire-proofed white cloth so fixed that a portion or flap could be unhooked for the purpose of loading. On a little shelf about four feet from the floor, inside the chimney, I fastened the mousetrap firing device described above, a small hole letting the string through by which it was to be fired. Beside the chimney at the customary height for a window, I placed a twelve-paned sash, the glasses of which were backed with tinfoil. A curtain was then draped effectively which, with a few pieces of properly colored wall paper and a fake baseboard to use with full figures, gave this background a very natural appearance.

At the left of the posing bench I made a small window with a slide which I can use for placing and focusing if fortunate enough to have daylight to work with, otherwise I have a hook in front of the poser for holding a gasoline lamp. To left and right and on the ceiling and as much of the front as the working of the camera will allow, I have white reflecting planes. (The floor should also be whitened, although so far I have neglected it.) The planes are as close to the subject as I can get them, still keeping them out of the field of the lens. The front reflector is opaque and shields the lens from the glare. Upon this screen, at first, I had fastened a large mirror which could be turned at any angle to

accommodate those who wished to see themselves as the camera saw them, but I had so little success therewith and, being unable to shift any blame thereto when the result was displeasing, I removed it. The string used to pull the trigger runs behind the background, through an eye to the hand of the operator.

By noting the diagram of the room one can see the many lighting possibilities obtainable by shifting the sitter to right or left, forward or back.

The prints submitted to illustrate results were made with the Eastman Commercial Ortho film. Panchromatic was tried for a time, but for several reasons it was abandoned, chief of which was the liability of fog when any sort of light was used in handling, and the inconvenience of working in total darkness. The Commercial Ortho proved to be the happy medium. I chose an eight-inch Dagor for its wonderful covering power and sharp image, as most of the negatives are made for enlarging. The wiry sharpness may be objectionable to some workers in this age of art, but my argument is, that the original negative should contain everything in the subject. As the pencil marks of the retoucher are "sharp," a better result can be obtained, if much retouching is to be done, by softening the print or enlargement in the making. This process is too familiar to need description. Iris-D and Portrait Bromide are the standards adopted for negative making, but, thanks to our paper-makers, if the mark is over or under shot, correction is easy.

FEEDING GRANDPA
Photo by Allen Young

Feeding Grandpa

My grandpa lies in a big high bed
He cannot walk or play
He is not sick my grandpa says
But he lies there all the day.

My grandma brings his supper
Then makes him shut his eyes
And tells me I can feed him
Just to give him a surprise.

So first I take his soup spoon
And put it to his lips
As if he were a baby
I give him tiny sips.

Then when he thinks I'll follow
With little bits of meat
I fool him with some pudding
Or cake just for a treat.

My grandma always whispers
So low he cannot hear
"His appetite's much better
When you feed him, baby dear."

—Florence Presley.

VI. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from February Issue)

CHAUNCEY M'GOVERN

The moment I have finished "copying" a document, and wish to make "bromide enlargements" from a negative 11 x 14, a gentle push causes the "copying" camera to slide back on its rubber tires—away from the heavy lamp "stands." Then each lamp is lifted easily from its regular iron stand, placed on the special wodden stand or table in front of the hole in the partition, and a turn-screw is snapped on. And each time the operator does this "snapping," he enjoys the consciousness that aside from the additional $500 investment avoided, there is a saving of rent for space that would be required if he had two more lamps around idle.

A Right-and-Left Object-Adjuster:

While the Folmer & Schwing camera stand ("laboratory stand") I use s nicely fitted up with a "screwing device" that enables the entire camera .o be moved backwards and forward, on its stand or bed—yet the "object-)oard" of the stand is so constructed that the "left-and-right" movement)f the document being fotografed is cumbersome,—requiring not only con-siderable handpower to shift the location of the document, to bring certain words or letters exactly opposite the center of the lens, but also making t frequently impossible to get the exact "centering." As a result, much .ime, effort and patience were lost by me until I thought of placing a racked (notched) brass rule on the lower edge of the movable part of the object-)oard, in its center. As the movable portion of the object-board enters he fixt portion, the racked rule engages the teeth of a brass cog-wheel so)laced that its teeth project slightly above the bottom of the slot into which he movable portion of the object-board slides. This cogwheel is attached

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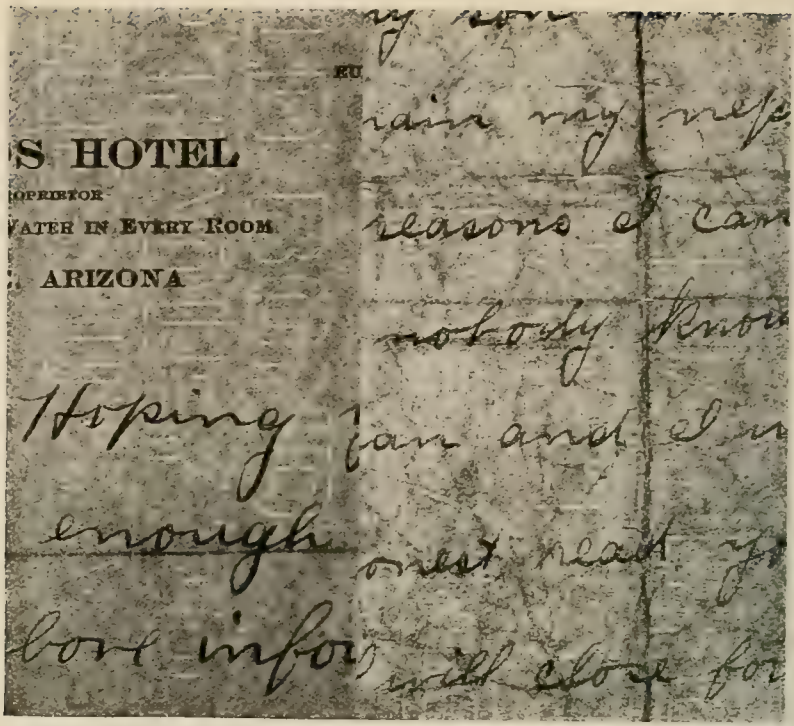

No. 7—TO PROVE that Top document was NOT written in year 1907 by a long-deceased millionaire: and that the paper itself (the "stock") was not MANUFACTURED until the year 1918 and was written within a few months previous to date of trial,—in 1923—on paper from the same pad used regularly (in 1923) by claimant to the estate; water marks shown to be the same, altho papers were Foto-MICROGRAFED at different cities; 12-inch II-B Tessar 6.3 lens; stop 32; no screen; two 250-watt Mazda lamps: Process film (each of the two documents); Trapped by these Foto-MICROGRAFIC illustrations made by TRANSMITTED light—and other illustrations—the claimant broke down and confessed to the colossal plot.

to a milled screw fitted into the lower wooden flange of the fixt portion of the object-board. The result is that an EXACT adjustment of the document (or part of document) can be made surely and easily by the mere touch of two fingers and thumb.

The positive need of an adjustment of a fine character on the object-board will be understood when we remember that in the making of Foto-MICROGRAFS a slight shove on the movable part of the object-board is more than enough, sometimes, to move the whole word off the ground-glass.

Special-Sized Focusing-Cloths Needed for "Foto-MICROGRAFIC" Work:

When it comes to making negatives with lenses of 48 millimeters, a moment's thought will make it clear to any camera-operator that the ILLUMINATION on the SUBJECT, as SEEN THRU THE LENS, is such that the focusing of the object is made possible only by the use of a special bright object on which to do the actual focusing. Therefore it is imperative to have a particularly DENSE focusing-cloth, one that will actually exclude the slightest trace of LIGHT from reaching the BACK of the ground-glass. In such cases the ordinary cloth (used by ordinary commercial

A MODERN SCHOOL UNDER ANCIENT BEAUTY

By GAVIEN F. McCULLAGH
Berkeley, California

fotografers) appears to the operator, when making a Foto-MICROGRAF, to be a veritable light "sieve."

Again, when making negatives of a size amounting to 11 x 14 inches, there is a comparatively mighty large area from which back-light must be excluded. As a result, I use today for a focusing-cloth a piece of black sateen a yard-and-a-half wide and three yards long, with the second yard-and-a-half of length folded back—and SEWED back—on the first half of the cloth.

Special Support for Focusing Cloth:

When it comes to using a focusing-cloth of double thickness, cut to a size of 54 inches, it means that there is SOME WEIGHT to the cloth that ordinarily would rest on the head of the operator. And when the weather is warmer than usual, the resulting perspiration materially interferes with the enjoyment of one's work, and the degree of its excellence. To remedy this trouble,— to retain the necessary opaqueness of the cloth and its necessarily large size, yet have comfort in its use,—I have had made and attached to the back of the camera a support of angle-iron, brass finish. Two arms, each three feet long, are screwed to the top of the swing-back of the 11 x 14 camera; the ends of the two irons are joined and held together by a third arm of angle-iron brass; and the resulting frame takes every bit of the weight from the head and shoulders of the person using the focusing-cloth,—his head thus working comfortably in a sort of airy tent of pitch darkness.

(To be continued)

THE FOURTEENTH HOLE By ANSON HERRICK

Exhibited at the London Salon, 1923 and the San Francisco-Oakland Salon, 1923

An Analysis of the Fourteenth Hole

By G. H. S. Harding

Mr. Herrick's picture having stood the test of being judged and accepted by some of the severest salon juries in the United States and London, would seem to need no further criticism.

A short time since, Mr. Herrick called me a pessimist in regard to pictorial work, so this might be taken as a beautiful opportunity to even up the score by slamming his print, but having been born with a conscience, unfortunately, I must admit that I always liked this picture, even before the juries showed their good taste by choosing it. To me its chief charm is simplicity, no masses of intricate detail to weary the eye and of which to grow tired.

The composition is a simple, circular form with the figures so placed, that the eye naturally follows from one to the other, until it rests upon the one at the extreme left, which to me is the most interesting.

The afternoon sunlight is also beautifully brought out on the green

grass with the long shadows of the players, who are totally unconscious that there is a camera within a mile of them, being engrossed in their game. Each player shows plenty of natural action and is evidently having a thoroughly enjoyable time. There is also a feeling of limitless space—plenty of elbow room, which I believe desirable for this pastime of swinging clubs and flying balls.

Now, let us sit back in our chairs and study the print, and see what we can possibly do, to make the composition even stronger than it is. It is only by studying good pictures in this manner that we can hope to improve our own work and develop the ability to see and correct the mistakes we make ourselves.

If one of the figures had been made to stand out somewhat stronger than the rest, which could easily have been done by a little work on the negative, it might have given a sense of principality, which I think desirable. In other words, doing this work would have detached the figure, given it more relief, and made it dominate the rest of the figures. A trifle more contrast in the extreme upper part would possibly have helped to take away the impression of an ocean like appearance of that part of the print.

This could only be ascertained by having an extra print, doing this work upon it, and then comparing it with the original to see whether or not the original has been improved, before attempting the work on the negative itself.

If the above few suggestions were carried out, the picture, to me at any rate, would seem to gain more strength. However, some one else might look at the print from a different angle than I do and not agree with my suggestions. But after all is said and done, it is just a real good picture as it stands, and I am glad to have the opportunity of saying so.

FORTHCOMING EXHIBITIONS, 1924

April-May, 1924—Australian Salon. Last day for receiving prints, March 18th, 1924. Particulars from the Secretary, Australian Salon of Photography, Box 298 G. P. O., Sydney, N. S. W. Australia.

April-May, 1924—Annual Exhibition—Hammersmith Hampshire House Photographic Society. Last day for receiving entries, Friday, 11th of April, 1924. Particulars from D. H. Wilkinson, Hon. Exhibition Secretary, 2, Drayton Road, West Ealing, London, W. 13.

April, 1924—Annual Exhibition—Bolton Camera Club. Last day for receiving entries, Tuesday, 8th of April, 1924. Particulars from J. Butterworth, 73, Adrian Road, Bolton, England.

May, 1924—First Annual Exhibition—Fort Wayne Art School and Museum. Last day for receiving prints, April 15th, 1924. Particulars from Karl S. Bolander, Director, Fort Wayne Art School and Museum, Fort Wayne, Indiana.

April, 1924—International Salon—Association Belge de Photographie. Last day for receiving entries, March 25th, 1924. Particulars from P. Limbosch, Hon. Secretary, 5, Avenue Louise, Brussels.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

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Our New Department

Our new department is proving a splendid success, judging by the many letters we are receiving commending it. This is very gratifying to us and as a result, we are going to increase its scope and make it even more instructive.

We are going to add, whenever possible, the maker's reasons for taking the picture, and how he made it. The maker's own view point is something that we are all anxious to know, and this will undoubtedly add further interest to the department.

We believe that an analysis of the picture will be more beneficial than a criticism, because the picture reproduced, has already met with the approval of at least one leading salon jury and sometimes many. This is proof, that the picture is a masterpiece in its class, and that it is almost beyond criticism.

An analysis will give us scope in dealing with the picture that a criticism will not do, and our heading will be changed accordingly. P.D.A.

Pictorial Groups

While on the subject of pictures, I have a suggestion to make to photographers, who, owing to their location, are unable to enjoy the advantages of print criticism obtained by membership in a Camera Club or a Pictorial Group. Form a small group of photographers in your neighborhood or town, who are interested in pictorial photography, and have them meet at least once a month, for the express purpose of criticising constructively, each other's work.

Friendly competition is a wonderful aid to improvement in picture making. With that end in view, the members could organize monthly photographic outings to different places, and bring the results obtained on these outings to the regular meeting. Then all can study the prints for their composition and possible improvements. Competition along such lines will not only be a benefit to all the members but will also be productive of many fine pictures.

There are so many advantages to an organization of this nature that it is impossible to mention them all. Form the organization, and above all things, stick to the purpose for which it is formed—better pictures.

P.D.A.

An Error

The title under the picture reproduced on page 63 of the February number of Camera Craft should have read, "Interior of Rosalind A. Keep's Home—Mills College" and not "Kemp" as written. P.D.A.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

The following is the Radio Talk given by President Stearns from Station WWJ of the Detroit News, January 7th, 1924:

To the Photographers of America, from Alaska to Panama—greetings. The executive board of the Photographers' Association of America now meeting in Detroit have decided to hold the 1924 convention in Milwaukee the first week in August. Make your plans to attend and make this convention the biggest and best ever held.

To the public—the citizens of America—the Photographers' Association of America extends greetings. Photography is the one art that is advancing today while other arts are declining.

No sculptor since has known as much sculpture as did Phidius, 200 years before Christ.

No other painter has had the knowledge of the painters' art that Rapheil had.

We have no poets like Dante or Shakespeare.

Where are our musicians such as Wagner or Bach?

In architecture, the Woolworth tower is considered a masterpiece, but it was copied from a cathedral in Belgium which they started to build before Columbus discovered America. In these days of Cubism and Futurism and Jazz—photography continues to advance.

Can you imagine a home without photographs of those we love and those that love us? Why it just couldn't be, that's all! We have grown up with these pictures, they have almost become a part of us. There is the photograph of Mother taken on her wedding day and the picture of Dad made in 1905, the year they gave him an interest in the business, and the new one we thank so much of taken last Christmas. And would you believe it, that curly headed, two-year old is our six foot Bob? The little mite beside him is sister Jane, who is married and has a home of her own. Last of all, tucked away with a pair of tiny tear stained boots is a photograph of Mary, the baby the Angels lent us for a happy holiday; for Mother, she lives eternally in that cherished photographic image.

It must be a joy to Daguerre, who discovered photography, to look down and see what came of chasing around trying to catch sunlight in a little black box. And don't forget—your friends can buy anything you can give them except your photograph.

This week finds the 100%ers enrolled almost as many as last week. Here is hoping next week's report will double, yes triple the number we now have. Come on folks and show your present Officers that you will back them to the limit. The results of your enthusiasm will be proven by the number of new members you secure for the Association. Good luck to you all.

The first Big Boom, of the membership drive for 1924 will soon be heard by over 16,000 photographers in the United States and Canada when the very attractive circular, now on the press, is released through the mails. We do not care to rob it of its "thunder" by a description in detail, but just wait till you see it and then decide whether it is not about as nifty a piece of

Association advertising as you have seen. The appeal is there; all we ask is that non-members take action at once, not the day after, but the Day you get it, and secure a year's benefit from affiliation with the national association of your profession.

For the present members, this will be the psychological time to get that ONE NEW MEMBER. They will have the whole information in a nut-shell, have the benefits fresh in mind and all it will need is a suggestive word on the street, a phone call or a note to have them attend to their application immediately. "Strike while the Iron is Hot" is an old expression, but it is very applicable in this case to those good old Association boosters who will try to get their one new member, double the membership, increase it 100 per cent. BE A 100%-ER.

"TWIN" CONVENTION

Photographers' Association of the M. A. S.
Southeastern Photographers' Association
Asheville, N. C.—May 19th-22nd, 1924

Special railroad rates to the "Twin" Convention, Asheville, N. C., the "Land of the Sky."

A special summer rate of 20 per cent reduction will be effective May 15th from all points south of the Potomac and Ohio Rivers, including Washington, Cincinnati and St. Louis, and as far south as Miami, Tampa and New Orleans.

As this will be a considerable saving in transportation, the convention dates have been changed definitely to May 19th-22nd.

Things are going fine for a great Convention and detail information will be published from time to time. Make your plans NOW, to visit "America's Beauty Spot," the "Land of the Sky" surrounded by peaks a mile high.

(Signed)
L. L. HIGGASON, President,
P. A. of the Middle Atlantic States.
J. H. BRAKEBILL, President,
Southeastern Photographers' Assn.

Winona School

The Trustees for the Winona School, conducted under the auspices of the P. A. of A. at Winona Lake, Ind., have held their meeting in Washington and in conjunction with Mr. W. H. Towles, set the dates for the 1924 session—July 7th to August 2nd. These will work in very nicely between the Fourth of July and the opening of the National Convention, August 4th. As Winona Lake is but a short three hour trip from Milwaukee, many students will have an opportunity to run up to the Convention for a few days at very little increased expense.

The re-appointment of Mr. Towles as Director will be welcomed by the many who are acquainted with his unusual ability to handle the position. Once again, we feel safe in forecasting another highly successful session for the school.

As before, the tuition for the four weeks' course will be $50.00, of which, the usual $10.00 registration fee is payable in advance. Members of the Association are advised to get their registration in AT ONCE, as all indications point to an early filling of the 125 permissible reservations. Checks should be made payable to the Photographers' Association of America and sent to the General Secretary, 722 Bond Building, Washington, D. C.

In some unaccountable way, the rumor is out that the National Convention for 1924 is going to be held in St. Paul in July. It's all wrong. MILWAUKEE, WIS., AUGUST 4th-9th is the place and time as decided upon by the Board of Officers at the January meeting, so do not be misguided by the false report and whenever possible, kindly correct those who may be in error.

A word regarding the membership brass plates for 1924. We have noticed that many members either "file away" their plate for the retiring year, or else hang the new plate over the old ones, on the same peg, so as to obscure those under it. We have taken a step this year, to have them all visible by providing a plate with two small holes in the lower edge to which may be attached the 1923 plate by two links of the old chain. It's the best way members have of letting the public know how long they have been affiliated with the National Association.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

After the routine business, Gabriel Moulin, Chairman of the Educational Committee, started the discussion on the seven questions his committee had prepared on submitting proofs to customers. Twenty-five minutes were devoted to this, which proved both interesting and instructive.

Then came a talk and demonstration by Tracy Webb, Home Portraitist of Oakland. This was illustrated and is of such interest that it will be published in the illustrated section of the April Camera Craft.

W. E. Dassonville's talk followed.

Mr. Dassonville's Talk— Photographic Plates and Papers

The discussions which we have had so far tonight, touching as they did those things so vital to photographers, show to me the rare possibilities of our Photographers' Association of California.

Mr. Webb's splendid demonstration also has a practical value to us which further proves the value of these meetings.

But now I am going to bore you with a lot of things which have no practical use, and yet will, I think, be of interest.

We are going to consider the construction of photographic papers, and certain things about them, with which, possibly, you have not come in contact.

I shall not speak of developing agents—that part of the announcement was a mistake on my part—for the subject will be left for Mr. Van Sicklen to treat with at a later date.

Today, as you know, we are practically all using developing papers. They are emulsion papers; and they are divided into two broad groups—the Chloride papers and the Bromide papers. There is also an intermediary group termed the Chloro-Bromide papers. The idea exists in the minds of many photographers that the Bromide papers are the very fast papers and the Chloride papers are the very slow ones. That does not follow, as there is a group of Chloride papers that are fast and the Bromide papers which are slow; however, the Chloride papers cannot be made nearly as fast as the Bromide papers when real speed is desired—on the other hand, the Bromide papers were supposed to have a great deal of gradation and lack of contrast. This really was the case for some years after emulsions were used—but today, that is no longer the case, for with our present understanding of emulsions we can shift the gradation of emulsion so that long gradation chloride or short gradation bromide papers can be readily made. From a standpoint of gradation there is no reason why a chloride or bromide paper should reign supreme above the other. When the papers are being made they do not merely take chloride of silver and put it into the emulsion, but the chloride of silver is made right then and there within the emulsion. As an illustration of that, I have brought the chemicals that I used for the purpose. There are three halogens used, chlorine, bromine and iodine. When the emulsion is to be made nitrate of silver is the base for the silver and say sodium chloride for the chlorine. By mixing solutions of these two the chloride of silver will be made. Here we have a solution of sodium chloride. The very moment that silver nitrate is added to the solution, chloride of silver will be formed. The sodium base will attach itself to the nitrate from the silver nitrate and that will remain in solution. We will try the experiment in this tube. You will note the silver chloride formed immediately and how it rapidly falls to the bottom of the tube. This silver chloride is almost insoluble in water, although slightly so. As you know, it is soluble in hypo and the rapidity with which it dissolves is quite surprising. We will dissolve it with hypo by just adding a few crystals. You

will notice the rapidity with which it dissolves.

Next we will produce bromide of silver. For this purpose we take potassium bromide solution and drop some nitrate of silver solution into it. You will observe that it is slightly more yellow than our last solution, and again, there is a sinking of the solid mass to the bottom of the glass. This also is soluble in hypo.

These two substances are the bases of practically all of the papers that you use today, and I venture to say that a large part of the papers used today are mixtures of these two.

When we come to examine the iodide we find that it is not fully soluble in hypo. You can note that the idode of silver is distinctly a yellow compound. Its presence in photographic papers can be seen in the daylight. The emulsion is of a distinctly canary color. This I understand is used in the making of dry plates. I do not know that for myself. There is very little literature on the subject of emulsions, and that which is published is likely to be misleading and unreliable.

Now, here in addition to water—for water alone was used in our first three tests—we have some gelatine dissolved in the water. We will add a little of our bromide solution to that jelly solution, shake it and now add some silver nitrate so we have bromide and silver in a gelatine mixture. You note that when the silver is added you don't see those heavy masses. We will have before us just a slightly opalescent photographic emulsion. Of course, it has not been carefully compounded as is a photographic emulsion and as yet it contains very little silver, but we will build it up by adding more. That is the substance you see on your plates and papers when working them. Had I performed this experiment in the dark and then exposed the emulsion to the light and added a photographic developer it would have darkened.

This only touches the very outriders of the photographic processes; but it has this value to you, I think, that it gives you some idea of your materials. So far as the actual physical paper upon which the emulsion is placed, it has these characteristics. It has color, it has weight and it has texture. That is the base upon which the photographic print has to rest. We print on it; and there we are met by these considerations — the gradation that we wish, and also this very important point which is easily overlooked—the depth of the deposit, and, lastly, the speed. The depth of the deposit can easily confuse you. If the depth is not very great, and the paper is of a harsh type possessing very little gradation, the print will show up soft. The reason is that with lack of depth you do not get contrast, and when contrast is lacking flatness comes in. I puzzled over that for many weeks when I first came upon it. I got short scale papers with great softness, but I was not getting density—and that was the answer. The character of the emulsion harsh or soft, the physical type of the paper, whether or not the speed suits our purpose constitutes the problem.

Now concerning the use of developers. The emulsion may be what you want but it does not always follow that you will get the sort of prints you want or expect. You may take a certain developer and get a harsh print, but it does not necessarily follow that it is a harsh paper. It is only relatively so. It depends upon how the developer is made up, whether you produce harsh or soft results. You might have gotten a soft print with exactly the same emulsion. I have known a developer to give great strength when used with a Hammer plate, but be perfectly useless on an Eastman film.

Temperature is also a great factor, and that is where we are likely to find difficulty.

There is a great latitude in the papers and plates which we can all take advantage of if we will study carefully the developer which we are actually using.

In answer to questions, Mr. Dassonville said:—

Question—Is it advisable to use hot water to dissolve hypo?

Answer—There is no need to use hot water in dissolving hypo. It will dissolve in a few minutes if contained in a piece of cheese-cloth suspended above and partially immersed in cold water. This plan has the

advantage of eliminating all the coarse dirt.

Question—Does warming the developer aid in developing an undertimed plate?

Answer—Warm developer will help to develop an undertimed plate, but there will be a tendency to fog. Bromide would counteract the tendency to fog which might be brought about by the heat.

Question—Is intensification advisable?

Answer—When the negative cannot be made over and is so thin that it cannot be printed an excellent intensifier is the bichromate of potash formula.

By varying the strength of the solution more or less intensification can be gotten. The negative is first bleached and then washed and finally developed in daylight. The process can be repeated if the first deposit is not sufficient—"A" gives the least and "B" the greatest amount of deposit.

	A	B	C
Potassium Bichromate	5 grs.	10 grs.	10 grs.
Hydrochloric Acid (Specific gravity 1.1878)	1 min.	5 min.	20 min.
Water	1 oz.	1 oz.	1 oz.

For the Professional

In the Interest of Commercial and Portrait Photographers

How Goodrich Uses Photographs to Get Illustrative Interest in Window Displays*

By Lester H. Butler

Coincident with the evolution of illustrative advertising in mediums that are printed has come the employment of the illustrative idea in window display designing.

The window is a medium in which can be expressed the thought of human action and use of product just as readily as the magazine with its advertising pages open to a picturization of the product in its relation to the everyday life of human beings.

Cutouts of characters, single and in groups, in action and in repose, people the windows of our retail establishments. The result is that the force of the window display is greatly augmented by the expressed action or suggested relation the advertised product has to the life of the observer.

A study of many of the elaborate setups or cutout designs employed as dealer sales aids by manufacturers in widely varying lines, reveals the remarkable progress that has been made in carrying the illustrative thought to the window.

In this connection the extent to which The B. F. Goodrich Rubber Company has gone in the development of the illustrative idea for its branch store windows is interesting. Its methods of arranging or securing the mechanical components are unique inasmuch as they have brought artistic and effective results having unusually vital human qualities.

The inevitable focal point of these displays is a product of the photographer's art. Ordinary bromide enlargements of a posed subject, a scene of a group, or an interesting view—the latter more often for essential atmosphere—are made up to the size required for the setting.

The designer works with his window as the stage. The whole is planned in detail with sketches before the collaboration of the photographer is called for. Then follow the location hunts, the securing of models and the direction of the poses which the photographer secures as "stills" on an eight-by-ten negative.

This idea of getting a broader human interest into the window display with the aid of the photographer is doubtless an incidental outcome of a plan used by the company several years ago to give local dealers a prominent tie-up with an extensive poster campaign.

Courtesy of Printers' Ink Monthly

This is one of the typical Goodrich window displays. The photographic treatment of the surroundings and characters, which are made in almost exact proportion, gives the display a reality that gets real interest from prospects.

Enlarged photographs several feet square of the dealer or his store were posted on the boards in his neighborhood that carried the company's poster advertising. Later the same process was used to reproduce in large size page advertisements appearing in national magazines. These reproductions were employed in window displays, to secure tie-up with current advertising, and in sales conferences to save the cost of reprints and to help create a more dominant impression on the conferees.

Gradually the idea expanded as the enlarged photograph lent itself to other adaptations. The company had the necessary equipment and its employment in window display work helped along in its maintenance.

The real illustrative idea, however, in this company's window display work seems to have had its beginning in a special display designed particularly for the benefit of the school children of Philadelphia. The display was to be put in the company's branch window to further the school board's plan of making the children more familiar with the city's various business interests.

The designer's inability to secure life-size cutouts of a school boy and school girl in just the pose he wanted caused him to turn to the photographic department for assistance. A boy and girl were found, posed and photographed and their life-size portraits pasted on wallboard and cut out. These stood at either side of an enlarged open book one side of which carried a ground glass panel. On the panel was projected from the rear constantly changing scenes of rubber gathering and manufacture, illustrating the "Romance of Rubber," the title of the book.

Since the time that display appeared, an interior study of the photograph in its relation to window display work has been made. As a result the most effective angles of projection have been ascertained and more natural postures in both figure and still-life work are being made.

It has been found that the least distortion of perspective is obtained when the photographer lowers his camera to a position that approaches the average elevation of the eyes of the observer as he passes the window.

This practice is followed in the "shooting" of all objectives that are shown close up. However, in getting distance shots, such as those required in landscapes or scenic backgrounds for decorative atmosphere, the cameraman sets his instrument at the elevation best suited to get the proper balance between sky and land.

Color is one of the dominant qualities of these window display enlargements. But to secure the most impressive color treatment the ingenuity and brush work of the artist are called for. The first or master display is made up with the greatest possible care employed in the study of color values. Other displays are then built from this key display.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

TONING BROMIDE PRINTS*

By Douglas R. Hill

In dealing with toning bromide prints, let us start at the beginning and take into consideration the foundation we intend working on.

Bromide paper is a paper coated with a sensitized gelatine, which on exposure to light in conjunction with a negative, and treated with chemicals which we term a developer, gives a visible image in the form of a black deposit of metallic silver. The more rapid the emulsion on the paper the larger the particles of silver in it, or as we say the coarser the grain.

In speaking of toning a print, we are considering the color we are striving for, and we should decide definitely on our color to harmonize with the subject and treatment of the picture in hand.

Tones on bromide papers are obtainable by three different methods:—1. Development, straight, accelerated or restrained. 2. Bleaching of image and re-development. 3. Direct toning of image.

It may be of interest to mention the effect on color of the image the development has in the first place. Different shades of so-called blacks are obtained by straight, accelerated or restrained development, and perhaps there are some who do not know how they obtained either a blue-black olive or warm-black tone. A print that has been over-exposed and under-developed will have olive or warm-black tones. When I say under-developed, such a print is not necessarily developed a short time and then hurriedly placed into the fixing or acid stop bath, but the result is obtained by a retarded developer. An old or weak developer or one containing an excess of bromide will develop slowly. When I speak of a weak developer I do not mean a diluted developer, but a developer originally of normal strength that has become practically worked out. A small amount of carbonate or a weak carbonate in the developer will give much the same result. So over-exposure and retarded development tend to olive or warm-black tones. On the other hand, whatever has a tendency to accelerate the action of the developer induces short exposure, full development, and cold-black tones.

Developers intended for cold-black tones usually contain more carbonate than sulphite; the carbonate being an accelerator makes the developer work faster. Where an increase of carbonate is used for cold tones there is a decrease in the amount of bromide used. For this reason, I favor metol-hydrochinone developers for blacks, because I can play about with the formula, and vary the amount of carbonate and bromide, having a definite object in view and sticking to that object throughout. A print that has been correctly timed and fully developed with a formula recommended by the manufacturer of the paper in use will give a good black tone, and this fully developed print is essential for successful further toning. When I advocate using the developer recommended by the manufacturer of the paper in use, it is only natural they know what their emulsion is composed of and what formula will best operate with it. Any developer will not do, and if you think you can mix up

**Reprinted from "The Australian Photo-Review."*

chemicals haphazardly and delude yourself that it is near enough, well, keep on wasting paper and chemicals; it is good for the photographic business, but not for your reputation as a photographer.

For black tones direct, I stated I favor metoly-hydrochinone, but amidol stands alone as a developer when sulphur, or what is usually termed sepia toning, is intended, although in some cases where a softer result is desired metol-hydrochinone can be used to advantage.

To get good color in prints, temperature is an essential factor. For bromide paper the correct temperature of the developer is 70 degrees F. If your developer is too cold the image appears slowly and the resultant color is poor. If too warm fog and stains occur. This may read like a discourse on development alone, but blacks are tones, and I wish to emphasize that when further toning, especially sepia, is to be considered, a rich black print is necessary to start with. It is of no use thinking that you can change a dull muddy print to something rich and sparkling by toning it. On the contrary, you are making matters worse. So get a good foundation to begin with.

In bromide prints the difficulty in retaining a perfect black color is no doubt due to the fixing and hardening baths after development, as any trace of sulphur in such baths must affect the silver image. The hardening and fixing agents are all a "give away" as far as sulphur is concerned. In cases where prints are desired to remain a good black color, alums, etc., should be strictly avoided. However, prints that are to be sulphide toned could be so encouraged from the outset, and alums can be used to an advantage.

The chief fault in bromide prints of lack of permanency is the incomplete washing to remove all hypo, which in time breaks down and liberates the sulphur it contains, which acts on the silver image and consequently stains appear and a general degradation of the image occurs. It should be remembered that the picture image is a deposit of silver which in itself on a chemically free base is to all practical purposes as permanent as its base. I would draw your attention to this point, and in all cases thoroughly wash your prints absolutely free of hypo. If hypo is left in a black print, it will in time ruin the tone of it. If hypo is left in a print to be sepia toned, the image is at once spoilt and degraded, for when using a ferricyanide bleach the hypo combines with the ferricyanide and forms a reducing compound which dissolves part of the image away. This, then, does not redevelop, a very important fact to remember. It is the neglect of or the misunderstanding of the effect one chemical has when combined with another left in the silver image that causes so many disappointments, and as hypo is a great offender out of place, take the very simple means of getting rid of it when it has done its work—wash well.

To obtain various colors, or tones, as we call them, active agents are used to bring about changes of the silver image. So it is of the utmost importance that, when we arrive at the final stage of our operations, in the interest of permanency we must entirely free the image obtained from all possible active, or, at the time, inactive, agents which may in the course of time break down and release another active agent to act on and affect the image. Some toning processes are not permanent, because the composition formed is not staple, for light and atmospheric conditions containing moisture, etc., are active agents in some cases.

Having obtained a black image to our satisfaction, let us consider toning first by direct methods.

These are obtained through the use of uranium, copper and iron salts. A long range of tones is obtainable with uranium or copper, tones ranging from warm black through brown and purple to red. With uranium, the print is taken out of the solution when the desired color has been reached, and should be washed in two or three changes of water with about one per cent acetic acid. After this, in several changes of water. The image will suffer if washing is too prolonged. About a quarter of an hour should be sufficient. The acetic acid is used because the uranium is easily attacked by alkalies, consequently tap water will very slowly dissolve it.

The following is the general uranium formula:—

Uranium nitrate	12 grains
Potass. ferricyanide	6 grains
Glacial acetic acid.	150 min.
Water to	10 ozs.

The same treatment applies to copper, but copper is not so readily dissolved by water. Should the high lights of a copper-toned print be slightly stained pink, the amount of potassium citrate should be somewhat increased.

The formula generally used for copper-toning is:—

Copper sulphate	55 grains
Potass. ferricyanide	45 grains
Potassium citrate	1 oz.
Water to	10 ozs.

Those interested in the subject have made tests, and find that prints of a ferricyanide image are not nearly as staple as a metallic silver image, being readily attacked by the atmosphere.

In toning with iron salts, blue tones are obtained, and ferric ferrocyanide, a substance known as Prussian blue, is added to the silver image, which remains unaltered. Ferric ferrocyanide is also slightly soluble in water. As the iron salts add a fresh deposit to the silver image, the final image is intensified.

The formula for blue tones is:—

Ferric ammon. citrate	22 grains
Pot. ferricyanide	45 grains
Concent. nitric acid	24 min.

When the desired tone is reached, wash well in running water until the whites are clear.

Green tones are obtained by combining the iron and the uranium baths as follows:

Potass. ferricyanide	45 grains
Concent. nitric acid	24 min.
Ferric ammon. citrate	22 grains
Uranium nitrate	22 grains
Water to	10 ozs.

Washing must not be too prolonged.

Violet tones can be obtained by first toning in the iron bath to a blue tone, and then, after washing, placing in the copper bath.

With the uranium bath especially, toning does not proceed evenly, some parts accepting the toning deposit quicker than other parts, and unless toned right out, there is a danger of unevenness of tone.

A further direct method of toning is for brown tones by the hypo-alum method. The hypo is dissolved first and the alum slowly added. The solution is allowed to stand for a couple of days. It is then heated to about 130 degrees F. with some old silver prints torn up in it, or a small quantity of silver nitrate is added. The bath is kept at 130 degrees F. for about an hour, and then, after cooling, is ready for use. This proceeding is what is known as the ripening of the bath, and the hypo-alum method seems to rely for success on the correct ripeness of the bath. The bath in use for toning can be used either hot or cold. If hot, the print should be placed in the bath cold, and the temperature gradually increased to about 120 degrees F. The print will take about 30 minutes to tone. If the bath is used cold, prints take anything up to three days or more. Prints to be used in the hot bath should be fixed in a combined hardening and fixing bath, and should be darker than is required for the final image.

The hypo-alum formula referred to is:—

Hot water	20 ozs.
Hypo	2½ ozs.
Alum	½ oz.

Allow to cool, then add 15 grains nitrate of silver dissolved in 1 oz. of water.

The second method of toning is by bleaching the silver image and redevelopment. Prints of an inferior or rusty black can be bleached in a copper sulphate bath and redeveloped with an amidol or metol formula without bromide. A good, rich black will result.

When using copper bleach, however, the bleached print must be thoroughly washed in running water for at least half an hour, as to have any copper combined with the final image will ultimately spell trouble.

(1)	Bleach:—	
	Copper sulphate	240 grains
	Common salt	240 grains
	Sulphuric acid	20 min.
	Water to	10 ozs.
(2)	Redevelop:—	
	Soda sulphite	50 grains
	Amidol	10 grains
	Water	2 ozs.
	Or:—	
	Metol	9 grains
	Soda sulphite	26 grains
	Soda carbonate	54 grains
	Water	2 ozs.

A particularly fine black tone can be obtained on a print of very poor color by using a bichromate bleach. This bleach causes slight intensification. In use the bleached print must be washed until the yellow stain disappears, which should be in a quarter of an hour.

(1)	Pot. bichromate	90 grains.
	Con. sulph. acid	200 min.
	Common salt	1 oz.
	Water to	10 ozs.

(2) Redevelop with either formula mentioned above with copper bleach.

A very rich deep purple-brown tone can be obtained by redevelopment with pyro, using the following formulæ:—

Bleach:—	
Potass. ferricyanide	½ oz.
Potass. bromide	½ oz.
Water	10 ozs.
Redevelop:—	(Dissolve in order given.)
Pot. metabisulph.	20 grains
Soda sulphite	1 oz.
Pyro	60 grains
Pot. bromide	60 grains
Soda carbonate	1 oz.
In water	20 ozs.

We will now consider sulphuretting the silver image, or as it is generally known, sepia toning.

Sepia toning is no doubt the cream of bromide toning. Such a wonderful and beautiful range of tones from warm black through sepia to brown can be obtained by this method that one need hardly ever go beyond it to express color or tone in a photograph. The image is converted into silver sulphide, which has been proved to be as permanent as any form of photograph. When a print is intended for sepia toning the image should be slightly darker than when no toning is to take place. The paper should be fully exposed and developed well out with a full strength developer. Over-exposure and under-development tend to yield yellower tones. The reason that the original image should be darker than if not for toning is that although no reduction of the image takes place, silver sulphide (which is the sepia image) has not the same covering power as metallic silver (the black image). Silver sulphide is transparent, metallic silver is not, consequently with the sepia image the print is richer and the heavy shadows more transparent.

When sepia toning, the print already fixed and well washed, is bleached or partially bleached, according to the desired final result, and then treated with a sulphide solution. The image flashes up in a few seconds in the sulphide solution.

(To be continued)

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

A Stereoscopic Weakness

In the Camera Club a week or two ago a fellow member asked me if I knew of an explanation of the occasional stereoscopic slide which is not wholly satisfactory by reason of the fact that the various planes appear to recede in steps almost as if the view were composed of a series of cardboard cut-outs arranged one behind the other. He asked also why with the same slide do some people perceive the oddity to a very marked extent, while others find it hardly noticeable? I had to confess that I had never seen any explanation, and I have since found it interesting to look for a satisfactory solution, and others may find it interesting to recognize one of the limitations of the instrument.

In the absence of any reason for suspecting that the phenomenon was due to some error in taking or mounting the photographs or in adjusting the stereoscope, it seemed clear that some item in the mechanism of vision must be produced by the original scene which is not produced by the stereoscopic slide or vice versa. If we identify such an item we shall probably find the explanation of the failure. As the question is evidently intimately connected with the optical judgment of distance it will be well to set down the chief methods by which human beings judge distance.

We judge of distance by two principal methods. 1. By **focal adjustment:** the eye adjusts itself for distinct vision for all distances from 5 in. to infinity. By experience we know distance from the amount of effort necessary to adjust for

perfect image, and therefore distinct vision. Judgments based on this are tolerably accurate from 5 in. to several yards. Beyond 20 ft. it is too small to be appreciable.

2. By **axial adjustment:** the greater or less amount of optic convergence necessary to produce single vision is a far more accurate mode of judging distance than the last. It is reliable from a few inches up to two or three hundred yards. Beyond this it also becomes inappreciable. These two forms of adjustment are muscularly quite independent of one another, but throughout our lives we hardly ever have occasion to make an axial adjustment (convergence) without simultaneously making a focal adjustment (accommodation), so that a life-long sympathy exists between the two sets of muscles. In consequence a variation in convergence automatically induces a variation in the focal adjustment. Thus, while for every plane in the view there is an appropriate convergence, so also for every degree of convergence there is an appropriate focal adjustment.

Whenever, from whatever cause, a conflict occurs between the two sets of muscles, the muscles of convergence will prevail; for the mind finds that a double image, although of perfect distinctness, is infinitely more confusing than a less distinct single image.

The stereoscope is an instrument so designed that when single vision is secured of any pair of points in the stereoscopic slide, the observer's optic convergence is the same as it would be if he were looking at the original point in the view instead of at two photographs of it. It may perhaps be necessary to insist here that as the observer's gaze moves from point to point of the stereoscopic view, so also, does his optic convergence alter just as it would do if he were looking at the original scene. The appropriateness of the variations induced in the observer's convergence is the whole basis of the stereoscope's ability.

Now when we first look at a slide through the stereoscope we secure single vision of one point in the view by appropriate convergence, and when our gaze shifts to a point in another plane in the view our convergence alters just as it would do if the original scene were before us. And in sympathy with this alteration the every-day focal adjustment immediately and involuntarily takes place. But to see the slide clearly the life-long sympathy that exists between the muscles of convergence and those of accommodation must be broken down and, because the slide remains at a constant distance from the eyes, an almost conscious effort must be made in order to bring the eyes back to their previous focal length.

In some people—particularly the aged—the sympathy that exists between convergence and accommodation is so strong that it is very difficult and indeed almost impossible to break it down. Such people can never get any pleasure out of the stereoscope.

We have seen that when looking at a natural view the normal observer's life-long experience causes his convergence and accommodation to react continuously and without apparent effort, in perfect harmony with one another as the gaze shifts from plane to plane. But in the stereoscope as the gaze shifts from plane to plane a series of unnatural and unexpected readjustments of accommodation must be made, and as these readjustments are entirely out of harmony with experience a fresh and unusual effort is necessary for each. And as each of these readjustments takes time the gaze cannot shift continuously as in nature, but can move only intermittently.

As a result of the gaze not being able to pass easily and continuously backward and forward from plane to plane in the stereoscopic view it will do the best it can and move in a series of jumps; and each plane to which it jumps will seem in consequence to be unconnected with the plane from which the jump was made.

As the weakness is not universally apparent the question at once arises—Under what conditions is it avoidable? Now the human eye has many of the characteristics of a photographic lens, one of

them being that when it is focussed for infinity all objects beyond a certain distance are also in focus. In other words, outside the accommodation area no focal adjustments accompany adjustments of convergence. If then the nearest object to the stereoscopic camera is beyond the human accommodation area the alterations of convergence when viewing the resulting slide in the stereoscope will not induce any sympathetic but undesirable focal adjustments, and the cause of the unpleasant artificiality will be removed. To sum up, we may say: Keep the stereoscopic camera well back from the subject.

P. R. BURCHALL.
B. J. of P.

Note:—The above explanation is doubtlessly correct. Fortunately the majority of people are not affected with the difficulty. As to remedying it by confining Stereoscopic work to distant objects, its general use would shut out the best of Stereoscopic material. Much of my own work has been at from twelve to twenty inches from the lens with excellent results.—H. D'A. P.

Notes and Comment

Origin of the Word "Kodak"

Everyday come inquiries on the origin of the word "Kodak," according to the Eastman Kodak Company. Universities, business colleges, trade publications, legal journals, sentimental ladies and the merely curious are among these inquirers.

The origin of the word has run practically the entire gamut of human curiousity. Even romance has taken a hand in the weaving, while acrosticists and legend have done all they could to make a mystery of plain fact and fine subtleties in a common place.

The Kodak was invented by George Eastman in 1888 and the name was coined by the inventor himself for a trade mark.

The mental processes that went to its making are quite simple. The inventor wanted a word easily spelled and readily pronounceable on native or foreign tongue. To this end the letters of the alphabet were toyed with until consonants that remain constant and vowels with no greater vagaries of accent than are found say, between Oxford and Kansas, were ranged in this rock-ribbed combination.

In a published interview on its origin the inventor said:

"I devised the name myself. A trade mark should be short, vigorous, incapable of being misspelled to an extent that will destroy its identity and—in order to satisfy trade-mark laws—it must mean nothing. If the name has no dictionary definition it must be associated only with your product and you will cease to be known as producing a 'kind' of anything.

"The letter 'K' had been a favorite with me—it seems a strong, incisive sort of letter. Therefore, the word I wanted had to start with 'K.' Then it became a question of trying out a great number of combinations of letters that made words starting and ending with 'K.' The word 'Kodak' is the result. Instead of merely making cameras and camera supplies, we made Kodaks and Kodak supplies. It became the distinctive word for our products."

Philologically, therefore, the word "Kodak" is as meaningless as a child's first "Goo." Terse, abrupt, to the point of rudeness, literally bitten off by ice cutting consonants at both ends, it snaps like a camera shutter in your face.

What more could the coiner ask?

Announcement

The change in signature of the Ansco pages has aroused some curiosity, so that the following explanation of what has happened will be of particular interest.

Through a reorganization effected last month, the manufacturers of Cyko Paper, Noko Paper, Ansco Cameras and Ansco Film have now become Ansco Photoproducts, Inc., the change involving a complete recapitalization and refinancing which has been in prospect for over a year, with a view to the expansion of the business along lines already laid out.

The factories of Ansco Photoproducts, Inc., are located at Binghamton, N. Y., Johnson City, N. Y. and Afton, N. Y., comprising a total of forty-eight buildings occupying thirty-six acres, the replacement value of these properties being in excess of $3,000,000. The plants are free from liens, and the new corporation starts without bonded indebtedness or bills payable, and with cash and other net quick assets of approximately $2,000,000. The capital stock consists of $1,800,000 First Preferred 8% cumulative (authorized $2,500,000), $1,470,000 Second Preferred 6% non-cumulative, and 105,000 shares of common stock of no par value (authorized 150,000). The resources permit a vigorous expansion in production and sales, and it is stated that Ansco is thus enabled to carry out plans which have been in view for some time.

The management of the old company was changed in the spring of 1922, when Horace W. Davis was elected president, in which capacity he continues with Ansco Photoproducts, Inc. During the period since Mr. Davis came into the old company, there have been other changes in the personnel, and certain departments have been reorganized to a large extent, particularly in connection with film and paper production, where the company's accumulated knowledge of sensitized products, together with recent discoveries along this line, has been scientifically applied under expert direction, on which has been brought to bear a closer knowledge of trade requirements than was available in the past. The management states that what it has been able to accomplish along these lines indicates a tripling of its paper sales in 1924, at a substantially lower cost, and a very rapid extension of its film business.

The program of Ansco Photoproducts, Inc., includes a vigorous national advertising campaign on its amateur line, this being a continuance of the policy adopted by Mr. Davis when he became president of the old company in 1922. In 1924 it is stated that there will be liberal use of full pages in the Saturday Evening Post and other publications of wide circulation, the Ansco advertising being handled by The Erickson Company, advertising agents, New York City. Mr. A. W. Erickson, who is president of The Erickson Company and chairman of the board of directors of the Congoleum Company, is also a director of Ansco Photoproducts, Inc., and a substantial stockholder.

The officers of Ansco Photoproducts, Inc., are: Richard H. Swartwout, Chairman of Board of Directors and Executive Committee; Horace W. Davis, President; George W. Topliff, Vice-President and Treasurer; Clarence B. Stanbury, Vice-President, London, England; John S. Norton, Secretary; C. E. King, Assistant Treasurer; William R. Gough, Assistant Secretary.

The directors are: Richard H. Swartwout, of Swartwout & Appenzellar, New York City; Calvert Brewer, Vice-President of United States Mortgage & Trust Company, New York City; William C. Breed of Breed Abbott & Morgan, New York City; Walter H. Bennett, Vice-President of The American Exchange National Bank, New York City; A. W. Erickson, Chairman of Board, Congoleum Company; Horace W. Davis, President; George A. Ball, of Ball Brothers Company, Muncie, Indiana; John W. Herbert, Director, American Snuff Company; Harry R. Swartz, President of Intertype Corporation; Paul Appenzellar, of Swartwout & Appenzellar, New York City; W. Arthur Howell, Attorney, 32 Nassau Street, New York City.

New Photo Supply House in Chicago

We have just received an announcement of the opening of the George W. Mackness Company of Chicago, a new photo supply house which has been started by some of the directors and executives who were for

many years associated with Burke & James, Inc., of the same city, which firm is now being liquidated.

The men in the new company are all well known in the photographic trade. They are experienced at the business, and announce that they have started out with a new ideal of service in the photo supply business.

They are located at 180 North Wabash Avenue, Chicago, and are now the owners and manufacturers of the well known Caywood flash lamp. This handy, compact and convenient flash lamp, which is so generally used, can be obtained from them or through your regular photo dealer.

The George W. Mackness Company are also exclusive Middle Western sales and distribution organization for Gevaert sensitized products (gas light papers, bromide papers and plates), Royal photo albums and Harrold exposure meters. They are also distributors for Victor flash powder, and they carry stocks of other staple lines of photo supplies and sundries.

Announcement

We take pleasure in announcing, that the well known firm of J. H. Boozer, Photographic Supplies, New York, has been obliged to move to larger quarters at 673 Lexington Avenue, near 56th Street, to enable him to take care of his present volume of business. He has been for the past sixteen years at 122 East 59th Street.

His new address is away from the traffic jam but easier to reach, and he will be glad to welcome his many friends and patrons there.

May your prosperity continue, Mr. Boozer!

Negatives Wanted

The Haloid Company, Rochester, N. Y., would like to obtain negatives of Outdoor Sports, taken among typical California scenery. They use a great many pictures in advertising and in amateur papers, and are now in the market for a series of subjects, as follows: Aquaplaning, Aero, Bathing, Diving, Polo and sports of all kinds. Pictures of attractive scenery are also wanted, preferably with the human figure included.

Webster's New Studio

Mr. F. A. Webster, formerly located at 517 Fourteenth Street, Oakland, has moved to his new and specially designed studio at 1916 Broadway, Oakland.

Mr. Webster is a prominent photographer of Oakland, and last year served as President of the Photographers' Association of California, guiding this organization through a very successful year.

New Address and a New Store

We congratulate the Central Camera Company of Chicago. They are moving, during the month of April into a new store at 112 South Wabash Avenue. This new store with its added facilities will enable them to take care of their old customers and also enable them to handle their increasing business.

Taking Many Pictures in China

Imports of Photographic Materials Increasing Steadily, with Germany America's Most Active Competitor

---

Imports of photographic materials into China have been steadily increasing of late years, with Germany the most active competitor of the United States, according to reports to the Department of Commerce. Germany's share of the total imports of these goods has increased from 2.2 per cent in 1920 to 9.8 per cent in 1921 and to 25.4 per cent in 1922, while American imports have decreased.

Shanghai, which took almost 64 per cent of the total importations of photographic materials in 1922, imported photographic material from Germany during the first six months of 1923 to an amount which represents 40.4 per cent of the total importations of these goods while the share of the United States decreased from 46 per cent in 1921 to 27 per cent during this period.

It appears that American equipment, such as cameras and films, are sold mostly when specifically demanded, while greater profits obtained by the dealers in the sale of German materials induce them to push the sale of these goods.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

ARTHUR S. TRELAWNY, President, Oregon Camera Club, Portland, Oregon. Photo by F. Y. Ogasawara

Oregon Camera Club

The Oregon Camera club recently held its twenty-ninth annual meeting in its new club rooms on the fifth floor of the Abington building, Portland Oregon, and incidentally closed a very successful year. Arthur S. Trelawny has been elected to the office of president for the present year and the club is looking forward to an eventful twelve months under his leadership.

Mr. Trelawny is comparatively a newcomer to the West, but like so many others, one view of "God's country" was sufficient to cause him to make up his mind to stay. He is an aggressive leader, a strong believer in the value of club spirit and appreciates the good a camera club can do in a community.

The biggest task which confronted the Oregon Camera club during the past year was the location of and moving into its new quarters. They lost their former home through the necessity of razing the building, in which they were located, to make room for a more modern structure. They caught the spirit of progress, however, and to those who have had an opportunity of seeing their new quarters, this fact is very evident. Practically everything has been installed to facilitate photographic accomplishments and with the exception of the heavier carpentry, all the work was done by club members. This naturally reduced the cost to the minimum and proved the spirit of the members.

The Oregon Camera club proudly boasts that the late Edgar Felloes was one of the pioneers of its organization. At the present time Will H. Walker and F. Y. Ogasawara are keeping the club in the limelight. These clever artists, however, need no introduction in these columns.

A series of lectures on photography and a grand old house warming are on the program for the near future. These events will be open to the public and Portlanders who do not belong will be given a good opportunity to realize what they are missing.

Newark Camera Club

NEWARK MUSEUM EXHIBIT

From March 8 to 31, inclusive, there will be exhibited at the Newark Museum a collection of photographic prints by members of the Newark Camera Club. A cordial invitation is extended to our readers and friends to view these pictures, and we hope many will avail themselves of the opportunity to see just what is being accomplished along pictorial lines. A catalogue of the exhibit will appear in the March issue of this Bulletin. Copies may be had upon application at the Club or at the Museum, on the opening day.

California Camera Club

February 15 to March 15

An Exhibition of Bromide Enlargements by Samuel Adelstein, one of our fellow members, will be displayed in the Club rooms. This collection will consist mostly of Italian fishing boats in and around Monterey. Members and their friends are especially invited to visit the Club to see this set of pictures.

Charles A. Love, Chairman,
Print Committee.

The Pictorial Photographers of America started their activities for 1924 at their regular monthly meeting, Monday evening, January 6th, when Dr. T. W. Kilmer gave a demonstration on how he makes his paper negatives and gum prints. The Doctor's talk was very interesting and instructive, as well as humorous.

Among the one-man exhibits now being shown by members, are Joseph Pettrocelli at the New York Camera Club during January, and at the Chicago Camera Club in February; William H. Zerbe, at the Orange Camera Club, Orange, N. J.; and Miss Sophie Lauffer at Syracuse, N. Y.

The P. P. A. are proud of the fact that several of its members won the principal awards at the Frederick & Nelson Competition—Miss Watkins, Mr. Eugene Henry, Mrs. Antoinette B. Hervey, and Miss Mary B. Hervey.

Our Book Shelves

PERFECT NEGATIVES AND HOW TO MAKE THEM

By Dr. B. T. J. Glover

It is necessary to have a thorough knowledge of negative making if one wishes to succeed in photography.

How to develop the negative to suit the purpose for which it was made is a vital question and one that has to be reckoned with, as the relationship of the contrast of the negative to the paper on which it has to be printed is very essential in successful picture making.

This manual of Dr. Glover's is a practical treatise on the subject and can be read with benefit by all.

Publishers:—The New Photographer, 41 North John Street, Liverpool. Price one shilling.

INNS AND TAVERNS OF OLD LONDON

By Henry G. Shelley

This book sets forth the Historical and Literary associations of those ancient hostelries together with an account of the most notable Coffee-Houses, Clubs and Pleasure Gardens of the British Metropolis. 355 pages, Price $4.00. L. C. Page Co., Boston, Mass., Publishers.

THE ART OF COLORING PHOTOGRAPHS

By Avenir Le Heart

This manual takes you step by step through the process of coloring photographs. It deals with portraits, landscapes, seascapes, night scenes, etc. It is a practical treatise on coloring photographs in oils, and should prove of value to all who are interested in this work.

Published by Los Angeles Times-Mirror Press, Los Angeles, California. Price 75 cents.

CASTLES AND CHATEAUX OF OLD TOURAINE AND THE LOIRE COUNTRY

By Francis Miltoun

With Pictures by Blanche McManus

This is a very interesting account of leisurely wanderings, extended along the banks of the Loire and its tributaries and through the countryside dotted with splendid monuments of Renaissance architecture.

The book is profusely illustrated with drawings by Blanche McManus, which add further interest to the text.

Published by L. C. Page & Company Inc., Boston, Mass. Price $3.75.

TRACTS FOR PICTORIAL PHOTOGRAPHERS

No. 1.—The Real Pictorialism

By F. C. Tilney

Mr. Tilney is one of the best known critics on photography in the world and what he says and writes always contains much food for thought.

His tract "The Real Pictorialism" is the result of an address that he gave to the members of the Royal Photographic Society in reference to the feud, real or imaginary, existing between painter and photographer.

Photographic quality alone will never gain for the photographer a reputation as a Pictorialist, he must study and adhere to the laws governing the graphic arts. It is only by doing this that he can develop his ability to see and extract the picture from the subject matter before him.

What methods to pursue to get these results, under-exposure, so-called straight or control photography Mr. Tilney does not say, he leaves that point strictly up to the photographer himself.

There are four illustrations around which Mr. Tilney really builds his discourse and they lend interest to the tract.

This is the first of a series of tracts on photography to be published and we certainly recommend it to all interested in pictorial work.

Publishers: Henry Greenwood & Co., Ltd., London, W.C.2. Price one shilling.

Photograms of the Year, 1923

This popular annual, edited by F. J. Mortimer, is so well known that it seems almost unnecessary to say anything in reference to it.

The editor's review of the year's work is very interesting, and contains much food for thought. Pictorial photography is so extensively practiced, and the standard of the work produced at present is so high, that selection of the prints for "Photograms" has proved a difficult task. The standard of the collection of prints is very high, and, while some of the prints might not appeal to us, they are all well worthy of careful study.

Mr. F. C. Tilney's comments on the prints are done in his usual masterly way, and certainly make one stop and think.

Publishers, Iliffe & Sons Limited, London. American Agents, American Photographic Publishing Co., Boston 17, Mass. Price, paper $2.50, cloth $3.50.

PRINCIPLES OF ADVERTISING

By Daniel Starch, Ph.D.

Graduate School of Business Administration, Harvard University.

Many books have been written on advertising, but here, at last, is truly a monumental work! 1008 pages that will do much to take the guesswork out of advertising. So far as practically possible at the present time, Daniel Starch, a long-recognized authority on advertising, has developed in this book scientific methods for dealing with the actual problems of advertising. For example, he fully describes tried and proved methods of determining the probable effectiveness of a series of proposed advertisements before they are used. Actual returns from testing advertisements under this plan in a variety of lines are given in detail by the author. Step by step, he explains how you can proceed to build up effective advertising results.

Published by A. W. Shaw Company, New York, Chicago, London. Price $5.00.

The American Annual of Photography

The 1924 edition of this popular annual has just been received from George Murphy, Inc. It is the old familiar annual that we all know. Its many varied articles are valuable and instructive to the student of photography.

Its many illustrations appeal to me more strongly than those contained in past volumes, and will repay careful study.

The annual is very readable and is well worthy of a place on the shelves of any photographic library.

Edited by Percy Y. Howe. General Sales Agents: George Murphy, Inc., 57 East Ninth Street, New York. Price, paper $1.75, cloth $2.50.

International Photographic Association

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Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
Missouri—J. F. Peters, Room 408, Union Station, St. Louis.
New York—Louis R. Murray, 927 Ford Street, Ogdensburg.
Oregon—F. L. Derby, La Fayette.

Post Card Albums

The 10th number of the Post Card Albums has been routed, and the 11th will commence its circuit during the early part of April.

The recipients of these albums reside in various parts of the United States; all who subscribe for "Camera Craft" can receive these semi-annually, by contributing from two to four prints to each issue. There is no expense connected with these albums except the mailing of them, from one member to another; and which is reduced to a minimum by the one pound parcel post rate.

Many new ideas and inspirations are gleaned by the advanced members, and the energetic student of photography finds therein displayed a wide field for their chosen art.

Send such of your prints that you choose for merit or attraction; or if for any reason hesitating, write inquiringly to—

Most fraternally yours,
JOHN BIESEMAN
Hemlock, Oregon,
Director Post Card Albums.

NEW MEMBERS

5312—D. Carlos Verbcke, P. O. Box 67, Kingstown, St. Vincent, B. W. I.

Post card and 5x7, and smaller, of local views of the island, street scenes and photos of general interest, still life and life studies; for photos of general interest, stereoscopic, live studies, views, etc. Class 1.

5313—Victor M. Olsen, 2113 W. 4th St., Duluth, Minn.

Anything up to and including 8x10, of scenery, flowers and still life; for scenery, still life or figure studies. Class 1.

5314—Evan C. Douglas, P. O. Box 777, Prescott, Arizona.

Adirondack mountain landscape, Northern Arizona landscape; for general—animal or child studies. Class 1.

5315—W. B. Hishman, 182 Glenwood Ave., Meadville, Pa.

Class 3.

5316—Roy H. Heiser, Wash. Trust Building, Washington, Pa.

4x6 to 11x14 of artistic child portraits and child nudes (Pictorial); for the same class of subjects. Prefer a small number of real good work. Class 1.

5317—Chas. M. Wood, 157 Broad St., Ottawa, Ont., Canada.

3¼x4¼ and 5x7 of summer and winter views of the Gatineau mountains, lakes and rivers, and out and indoor studies of female figures; for the same. Am interested in figure studies both draped and undraped. Class 1.

5318—F. E. Driscoll, 1208 Stanyon St., San Francisco, Calif.

4x5 (Camera is Graflex with Cooke F 3.5 lens) of complete set of President Harding's funeral at San Francisco. Some Pastoral scenes, general press pictures, athletic events; for views, particularly sunset pictures or cloud effects. Pastoral scenes, poses for artists' work. Class 1.

5319—B. Sargeant, 885 Sausalito Blvd., Sausalito, Calif.

1⅝x2½ V. P. of pictures of general interest; for the same. Class 1.

5320—Geo. M. Rogers, Box 358, Wallowa, Oregon.

2¼x3¼ of landscape and mountain scenery, wild life pictures, lakes and rivers; for the same. Class 1.

5321—H. C. Green, P. O. Box 399, Fayetteville, Arkansas.

4x6 of home portraits, studio busts, commercial prints; for home portraits, interiors, flash lights, etc. Class 1.

RENEWALS

4291—John R. Palmer, Avon, N. Y.
Class 2.

5001—Edna R. Gordon, 40 Marshall Road, Yonkers, N. Y.
Class 3.

5014—G. Ernest Daniell, 286 Coming St., Charleston, S. C.

4x5, 4x6 and post cards of landscapes, marines, architectural, events; for anything of interest, except portraits and still life. Class 1.

5091—Gordon Wray, 69 Elmwood Ave., London, Ont., Canada.

Vest Pocket to 4 x 5 of miscellaneous; for anything of general interest, especially 4x5 or smaller portraits. Class 1.

XXI No. 4 APRIL, 1924 Price 15 Cent

CAMERA CRAFT

The SNAKE DANCE by the SMOKI INDIANS PRESCOTT, ARIZONA.

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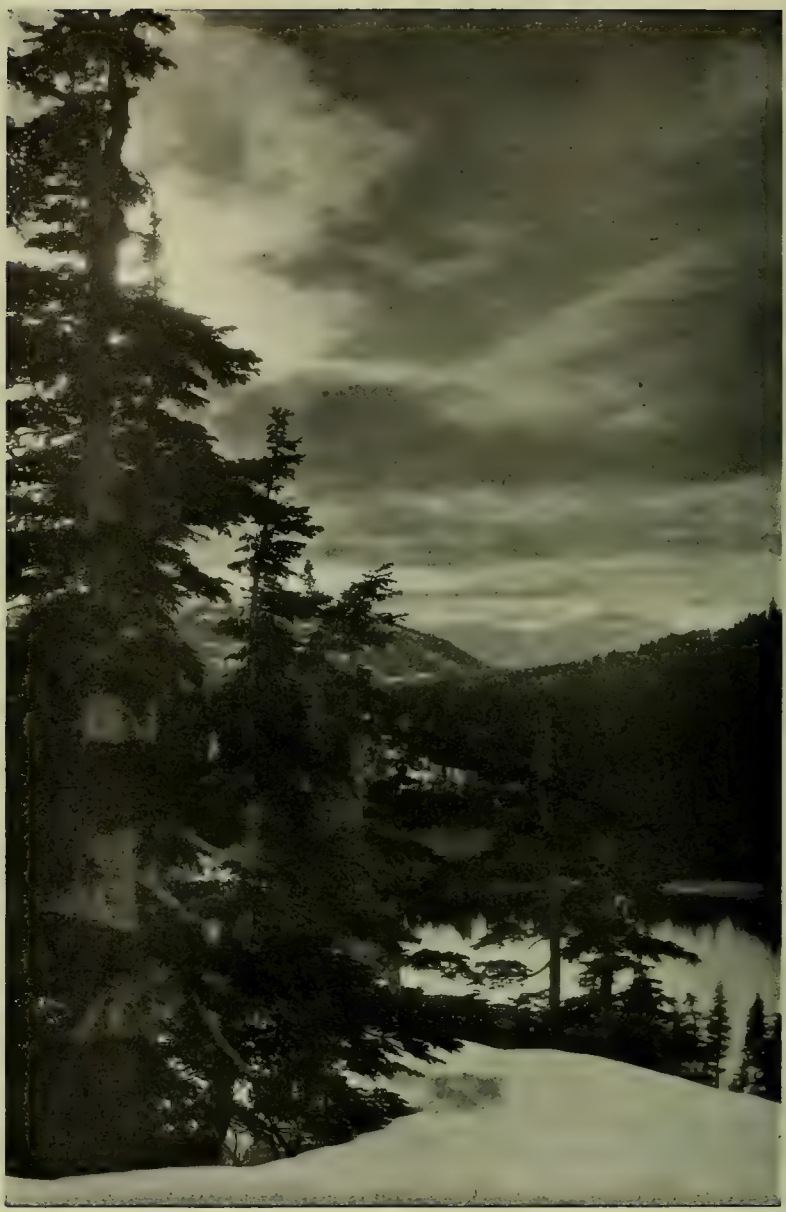

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

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Home Portraiture

By Tracy Webb

With Illustrations by the Author

(EDITOR'S NOTE—Mr. Webb's talk at the meeting of the PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA on February 11th, proved so interesting and instructive to the photographers present that we asked permission to reproduce it in full in these pages. Mr. Webb is not only a successful home portraitist but knows how to tell what he knows.)

Home Portraiture difficulties divide themselves into those of a psychological nature and those which are technical.

To begin with the psychological:

Allaying Excitement

I suppose about 90 per cent of all home portraiture is the photographing of children. If I had only to deal with the children themselves many of my difficulties would disappear, and I expect studio photographers would say the same thing.

On entering a home my first efforts often have to be directed towards allaying the air of excitement which I find very much in evidence. Children, even little babies, are very open to suggestion and are sensitive to their surroundings, probably more so than grown people, and an excited child is a very difficult subject for a portrait. The excited parent will often bring the excited subject to me and I am then expected to rush at the little victim and enthuse over his or her wonderful looks and so forth. I generally have to explain in so many words that I purposely do not take any notice of the child as I find by experience that I get acquainted quicker when I go around quietly attending to my apparatus, letting the child gradually become used to my presence. I then try as tactfully as I can to suggest that the mother or others around will please be as quiet and matter-of-fact as possible, as if nothing out of the way was taking place. If left to themselves they will sometimes "boo" at or otherwise "entertain" a tiny baby until the poor thing is utterly exhausted and hasn't a smile left.

Avoid Perfunctoriness

This reminds me of another difficulty which is very hard to express and yet is very real. We are liable to get so used to walking into peoples'

HOME PORTRAIT
Daylight Used
By TRACY WEBB
Oakland, California

TWINS

HOME PORTRAIT
Flashlight Used
By TRACY WEBB
Oakland, California

houses and proceeding to set up our apparatus that we are liable to forget that in most cases this is quite an unusual and even unique event to our customers and we must beware of going about our business in **too** matter-of-fact a fashion. We must show by our manner that we are keenly interested in **this particular occasion,** that we are going to be unsparing in our efforts to make the pictures a success. **We must carefully avoid all appearance of perfunctoriness.** This may seem to contradict what I have just said about being matter-of-fact; but really I think the point is to show by one's manner that one's quiet lack of excitement is due to absolute confidence and not to indifference.

Confidence

I sometimes find that people to whom home portraiture is a new thing are rather uneasy as to one's power to get good pictures in **their** home, and I will confess that in some homes one is up against it. Sometimes when I enter a house I feel that the making of a portrait there wouud be impossible. The lighting, the furniture and the shape and size of the rooms may appear to present insurmountable difficulties, while a crowd of friends or relatives may make one despair of ever getting order out of the chaos. But I know, that not by the bat of an eye must I show that I am aware of any difficulty. If I show that I am perplexed and uncertain, hesitating or in difficulty, I will at once lose control of the situation, and more than likely, the proofs, however good, will be mercilessly criticized and perhaps rejected. A confident, unhesitating manner of working is of great importance in producing the right psychological atmosphere. The great thing is to start doing something, anything almost, with the utmost show of confidence and assurance and it will be surprising how the technical difficulties will gradually clear themselves up and be surmounted.

Subject—Small Child

Now, with regard to the subject, if it is a small child, as I have already indicated, I take very little if any notice of him at first. I try to be quiet and gentle, and when the time comes actually to deal with him, more than ever do I try to show and feel absolute confidence. I assume by my manner and actions that I think the child is going to do exactly as I wish. I get the mother to leave the room if the child does not cry for her, and at once proceed to get him interested in something, the simpler the thing the better. By the way, I always carry a supply of small ten and fifteen cent toys.

If I am compelled to use flash light I show him the apparatus, how the ignitor works and sparks and explain that it is going to pop. I am sure this is better than telling him senseless fibs. In fact, I **never lie to a child,** and if the mother starts telling him silly stories about the "dickey-bird" I ask her to stop. I don't believe it is any use promising rewards; if it works for one exposure it will hinder all future ones. After all, the whole problem is to get the child to like you and have confidence in you and I suppose everyone has a different way of doing that.

HOME PORTRAIT
Daylight and Electric Light Used

By TRACY WEBB
Oakland, California

Roaming Around

In his own home a small child is much more liable to get up and move away owing to the lack of strangeness in the surroundings. This is one of the hardest things to overcome. Sometimes a suggestion to play ball, and the production of a ball for the purpose, will give one a chance for one or two exposures. Sometimes placing him on a high seat or table will make roaming around seem more difficult, but mainly the only real cure is to so interest the child that he does not wish to go away.

Grown People

In dealing with grown people there is little under this heading that would not equally apply to studio portraiture and is, therefore, outside the scope of my remarks. There is one rather important point, however, the home portrait operator has not as a rule the benefit of the services of a lady receptionist and when dealing with lady subjects must be prepared to answer questions with regard to costume.

Difficulty in getting a natural and graceful pose, supposing a three-quarter or full length picture is called for, can sometimes be solved in a way not open to the studio operator. Occasionally, while waiting for me

to arrange my apparatus, the subject will seat herself in the most natural and graceful attitude. Often my first exposure is made that way.

A little knowledge is a dangerous thing and that applies to art very accurately. Ladies will sometimes, thinking they are very artistic, ask for something technically or artistically impossible. My principle is not to refuse to try point blank but rather to make a beginning and a certain amount of preparation towards it and, if possible, make an exposure; then gradually and, if possible, imperceptibly steer away from it, always letting the subject feel that you at least **think** that you are carrying out her wishes.

We must not for a moment forget that expression is 99 per cent of the value of a portrait. Except in special cases, such as bride pictures, furniture, accessories, objects in the background, changes of costume, changes of **pose** even, are thrown in to satisfy the subject that she is getting value for her money. They are not necessary and often detract from a good portrait. And yet that expression which is of such 99 per cent importance is a very, very evanescent, delicate and subtle thing. To get and keep that expression the operator has to get on terms of complete understanding and sympathy with his subject. The tiniest suggestion of criticism, the least indication of irritation or difficulty on the part of the photographer and something is snapped between him and his sitter and it may be impossible to regain the right atmosphere on that occasion.

Interference from Others

Of course, the home portrait man is more liable to have interference from others than the studio operator and it is naturally much harder to order people out of their own living rooms than it is to **keep** them out of the camera-room. But it can be done and in most cases, it must be done. A third pair of eyes will sometimes make even a two-year-old impossible to take. Grandparents and aunts are as a rule more disturbing than mothers. A child's nerves are more easily tired than one would think and the parent who repeats to the child everything the photographer says to him, as if she thought he were deaf to your voice, will quickly tire him out, while I need hardly say that the person who insists on admonishing the subject all the time to "do as the man tells you," "don't hold your mouth like that" and so forth, makes portraits impossible.

Pets in Pictures

Sometimes I am asked to get a pet such as a dog or a cat into the picture with a lively child. I do not assume right away that that is going to increase the difficulty. I think a dog more often helps than hinders, because the subject's mind is so fully occupied with the animal that he forgets himself, and dogs can nearly always be made to keep still a moment by whistling. A cat is a different matter. I let it be brought in and try it out. Generally after a few moments the customer will be convinced that cat portraiture is a special science and is not to be mixed with children. Rabbits are good subjects if they help to make the children happy, and

HOME PORTRAIT
Daylight, Electric Light and Spotlight Used

By TRACY WEBB
Oakland, California

although they appear to be shaking all the time, the movement, for some mysterious reason, does not show even in time exposures.

Groups of Little Children

The Home-Portrait photographer will be asked to take groups and especially groups of little children much more often than the studio man, and this is my main objection to home-portraiture. I find I cannot get out of the difficulty by having the subjects looking down, there are very few parents who will accept such groups, they want to see all their eyes. The objection to groups, from my point of view, arises from the fact that the best picture of each member practically never occurs in the same negative and the parent is seldom willing to take a group containing two **good** pictures of two of her children if in one of the other proofs she sees that one of them is better. She wants resits until the **best** of **each** one occurs in the **same proof.** One possible solution of the difficulty occurs to me, although I have never had the courage to put it into practice, and that is to submit only one proof, the one which you consider best. If each one in it is good the parent should be satisfied and the existence of a better picture of one of the subjects in another of the negatives will not be known to her.

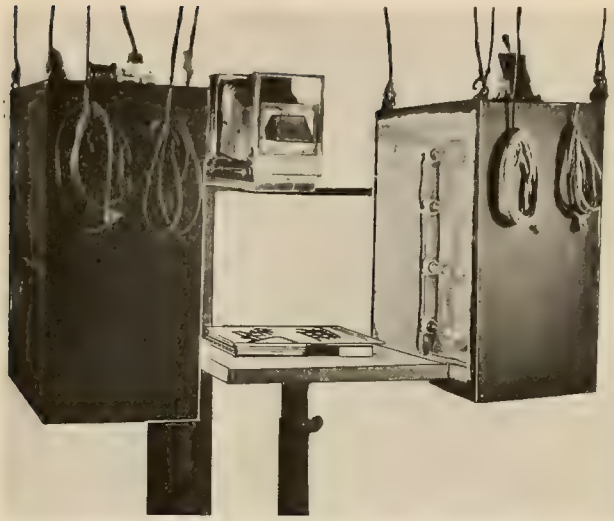


PHOTO COPYING APPARATUS

By E. H. FLAHARTY

One's Self

There is just one other psychological point to be referred to and that is that of the photographer himself. He must have a good deal of control over his expression and over his temper. Surprising things will happen, but he must not show surprise. Children and parents will try his patience to the breaking point, but he must remain sweet to the end. **He** must never be the one to give up first.

There is a lot of hard physical work in transporting and setting up one's apparatus and in moving furniture. A tired man gets irritable and depleted of ideas much quicker than a fresh one. I don't any longer do a lot of hard physical work for the sake of some trifling effect (I used to do so) for I always remember that freshness is a great asset in obtaining control over children, and in getting into touch with people so as to get good expression.

Apparatus Demonstrated

Turning to the technical side of his subject Mr. Webb pointed to the following items, loaned for the occasion by Hirsch and Kaye, and explained their use. The speaker sought to bring clearly before his listeners the advisability of having sufficient equipment to meet every situation that might arise, and for all of these he finds constant use:

1 8 x 10 Korona Home Portrait Camera with Reducing back to take 5/7 holders
1 No. 2 Korona Folding Studio Stand
1 12″ Wollensak Series II Velostigmat Lens
1 Folmer & Schwing Home Portrait Reflector
1 Eastman Portable Background
1 Eastman Portable Background Carrier
1 Halldorsen Home Portrait Flash Lamp
1 Halldorsen 5 Unit Home Portrait Electric Lamp
using 5-400 watt concentrated filament blue lamps
1 Halldorsen Concentrating Spot Lamp.

Mr. Webb posed several subjects under the Halldorsen Electric Lamp, and with the Concentrating Spot Lamp, demonstrated the ease with which good Home Portraits can be made entirely by artificial light.

Photo Copying Apparatus

By E. H. Flaharty

With Illustrations by the Author

In the Medical Research Laboratories of a large Western hospital, a photographic copying equipment is in use which is truly a unique feature of the department. The various doctors and chemists are constantly referring to many different reports, journals and reference books from all parts of the world and written in many different languages. There are many pages in these books which have to be copied for various purposes. A typewritten copy is impossible many times due to certain algebraic expressions, drawings and sketches illustrating the articles which could neither be copied by typewriter or hand in a suitable way. As absolute accuracy was necessary, attention was turned to a photographic means of making the needed copies of material, so that the subjects copied might readily be filed under various subject headings or which would be compact enough to be placed in a portfolio to be read on trains or taken home, etc., instead of having to handle a voluminous book weighing several pounds.

The result of the undertaking to make a copying apparatus is explained in the following paragraphs and illustrations, and is within comparatively easy reach of anyone requiring inexpensixe yet accurate and clear copies of printed matter, drawings, etc.

In the particular equipment referred to, a 5 x 7 longbellows camera (1) is securely mounted horizontally on a bench (2) 12 inches wide and 36 inches from the floor. Either a smaller or larger camera than that mentioned above could be used. Beneath and to the front of the camera a copying table (3) 20 inches square is placed. This table is so constructed as to permit it to be raised or lowered to the desired height, according to the size of copy to be reproduced.

This raising and lowering device is made by a 1½-inch pipe (4) supporting the copying table and connected to it by a railing flange, telescoping into a pipe 2 inches in diameter (5) which is fastened to the base (6) by means of a 2-inch railing flange. The base is made of heavy board or plank. Holes are bored in these two pipes and an iron pin (7) inserted on which the upper pipe rests, and by this means any height may be maintained.

Now the camera is in horizontal position and at the same time our copying table where the surface to be copied is placed is also in a horizontal position. In order to be able to have both the camera and the copying surface horizontally mounted, which makes a convenient working arrangement, a mirror attachment (8) is made to fit over the lens, the mirror being at an angle of 45 degrees from the perpendicular, so that the horizontal surface of the copying table is transferred through the lens onto the perpendicular ground-glass of the camera, as shown by the accompany-

ing section drawing which serves to illustrate the position of the mirror in front of the lens. As the rays of light hit the mirror they are transposed once, that is, the object is transposed, and as the rays pass through the lens they are transposed back again to their normal position. If we used plates or films in the camera this would be a very undesirable feature for we would find that in making a print from such plate or film that our print would read backward. This trouble is eliminated, however, by the fact that plates or films are NOT used, but instead of them we use a fast bromide paper, and make the copy directly onto this paper which greatly simplifies the copying process, for when this paper has been developed and dried the copy is ready for use. Bromide paper, such as is used for this sort of work, may be purchased at any first class dealer in photographic materials.

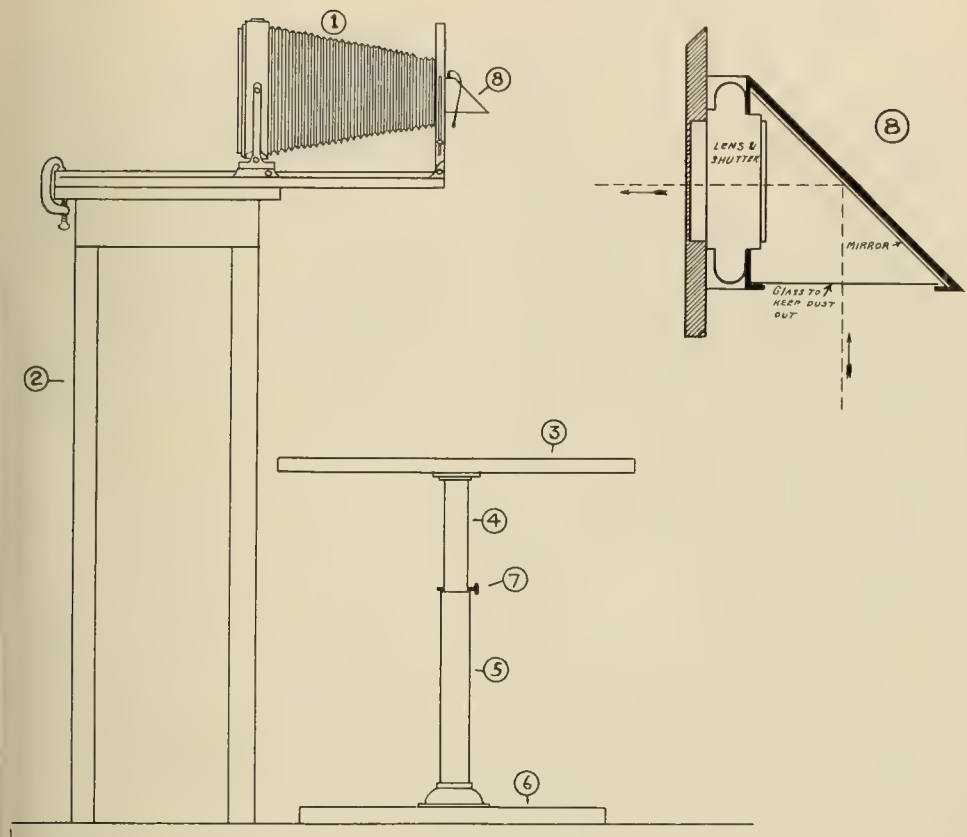
After the subject to be copied has been placed in the desired position on the copying table, being held down flat by a piece of clean glass if it is necessary, the proper focus is obtained and the exposure is made much as if a film or plate were used. In focusing, a wide-open diaphragm should be used and when an accurate focus is obtained the diaphragm should be stopped down about one half in order to insure a clearer copy than can be had if a wide diaphragm (and consequently a shallow depth of focus) is used. If the diaphragm opening is too small (letting in too little light) the length of exposure is necessarily greater and might require too much time in making a single copy. However, the matter of what diaphragm to use can better be decided under particular working conditions as it may be necessary to use different size openings at different times.

The lens used in the camera referred to above is a Triple Convertible Velostigmat Series I, F:6.3, 7-inch focus. This type of lens or a similar type of anastigmatic lens is preferable for this sort of work, although other types of lenses may be used with satisfactory results.

Single weight bromide paper, size 5 x 7 is used and is placed in a 5 x 7 plate holder, sensitive side out, over which a clean piece of glass of the same size is inserted into the plate holder in order to keep the paper flat and from slipping out. This glass covering will not make any appreciable difference in the copy, although the glass may be eliminated if a double weight paper is used instead of single weight paper, for the double weight paper would be self-supporting.

The loading of the plate holders with the bromide paper must be done in a dark room, and after they are loaded must be handled with the same care as would be necessary if the plate holders contained films or plates, as most grades of bromide papers are very sensitive to light.

As a uniform lighting is required at all times, the lighting for the subject to be copied is furnished by two asbestos-lined electric light boxes, one on each side of the copying table, and each containing eight 100-watt nitrogen bulbs. Fewer globes might be used with satisfactory results



CONSTRUCTION DIAGRAM
Photo Copying Apparatus

By E. H. FLAHARTY

but with this number but a few seconds are required for a single exposure and much time is saved where a number of copies have to be made. These light boxes are hung on pulleys connected to the ceiling by ropes and may be raised or lowered to correspond with the height of the copying table.

In installing these light boxes, if an electrician is not employed, precaution must be taken that the electric supply line feeding the particular outlet to which you will connect, is not overloaded by this increased amount of power used. In this connection it is well to remember that the total number of watts which a fuse will carry is calculated by multiplying the number of volts of the line by the amperage of the fuse; for instance, a 110-volt line and a 20-ampere fuse will allow the use of lights the total wattage of which do not exceed 2200 watts.

The Smoki Tribe of Prescott, Arizona

By Hans Bothe

With Illustrations by the Author

The question that is uppermost in the minds of most photographers of the amateur clan, and I presume a good many professionals too, is what camera did you use and what is your favorite lens? I shall therefore put your mind at ease in this regard.

The camera that has given me the best service under the hardest of knocks and most trying conditions is a 5 x 7 Goerz Ango fitted with a Goerz Dagor lens, 7 inch focus. I chose this camera in preference to the reflex camera because it is compact and in addition, it is fitted with a direct view finder which is a very desirable feature.

Last year, when General Foch passed through Arizona, the public crowded around his railroad carriage so much that it was practically impossible for any one with a reflex camera to photograph him. I got a fine picture by holding the Ango camera at eye level, and aiming between the heads of the people in front of me. Thus I was saved the annoyance of having to ask those in front of me to step aside, and the loss of my temper if they didn't comply.

A reflex camera owner and user will seldom use the direct view finder in connection with his camera, and for this reason I have seen fellows fail who could otherwise have produced first rate pictures. Just as it becomes a habit with some people to break pop bottles with a six-shooter fired from the hip, so does the use of a direct view finder become automatic.

The Ango camera is supported by both hands and the shutter is released by pressing a push button which operates as easily as the trigger of a gun. I follow the game with camera raised, center the cross, a visionary flash, and I have the victim, not only shot, but buried in the depths of my camera.

Another thing essential to good work is to be enthusiastic about what you are setting out to do. I have noticed that the photographer produces better pictures by being a real enthusiast, one who goes out with the thought to be glorified and exalted in the pursuance of his game. His pleasurable thrill is similar to that of the big game hunter who leaves civilization behind and faces the unknown; similar to that of the boy who delights in being able to discuss every angle of the game played that afternoon because he has taken part in it himself; or even the poker player who says: "I knew I'd win because it's my game, I enjoy it better than anything else I do." The real photographer to be successful, must be enthusiastic over his prospects to make a big killing; and he must smile at hardships and laugh at failures.

(UPPER)—PARADE OF THE SMOKI INDIANS
(LOWER)—BEGINNING THE CELEBRATION

By HANS BOTHE
Prescott, Arizona

It is this same enthusiasm that has made the desert pageant of the Smoki Tribe the huge success that it is. Thousands of people crowd the fair grounds each year to view the presentation of the dances used by the ancient Indians centuries ago. The whole town realizes that they have something the world should be shown, and something that the world should see. The Indian of the southwest belongs to the greatest tribes who have fought their bloodiest battles in Arizona. The magic of united strength in united prayer to the rain god in grand and splendid ceremony had never failed them showing faith and unison for strength and for miraculous power and blessing. What else could the most modern materialist want?

On June 8th there was a strange procession that passed the streets of Prescott. All the stores were closed and the sidewalks crowded to capa-

city. Dusky warriors, naked except for a buckskin apron around their loins and sandaled feet, kept step to the melodius rhythm of the tom-tom of the big drum and the music of the Elks Band. Real enough they looked except for some of their blue eyes. The second troup consisted of the squaws, or ladies of the tribe in picturesque Indian blankets and buckskin leggings. The clowns were next and a few cowgirls brought up the rear.

For weeks the enthusiasm of the Prescott business men had been spent upon this one great project. They danced, and painted up and handled snakes, and travelled back and forth, and advertised, and spoke, and decorated the lamp posts with the Smoki shield until there was no room for anything else except the Smoki Dance.

Five motion picture cameras were on the spot, and when the Principal Picture Corporation releases the film "When a Man's a Man" by Harold Bell Wright, the reader will have the opportunity of seeing some of the scenes as they happened.

After the parade the scene was transferred to the spacious fair grounds, located among the pines and hills of Arizona, lending more reality to the spectacle performed. A Hopi-house had been erected, which is shown in one or two illustrations, that served as dressing room and stage setting. A splendid blue sky, for which Arizona is famous, crowned the undertaking.

After a number of symbolic dances came the big closing number, which was the main attraction awaited by all,—the snake dance.

The Hopis, after whom the Smokis principally pattern, consider the snakes their little brothers, and seem to be justified in this idea since few of them are bitten or, if bitten, succumb to the effect of the bite. They prepare a drink of herb that acts as an emetic and, in spite of the fact that some of them are using good sized rattlers and are bitten repeatedly, a Hopi Indian always gets over the effects in about an hour. This is still a puzzle to be solved by the modern scientist.

The Smokis do everything that the Hopis do, in the way of handling snakes, taking them in their mouths, and suspending them in this manner while dancing, throwing them down, pressing them to their bodies and petting them, except that they use bull and gopher snakes in place of the rattlers. The largest snake used in this celebration was seven feet six inches long. The writer handled the snake himself and can vouch for the power and strength of the reptile even if it is not poisonous.

Some of my readers of the fair sex probably shudder to think of the clerk that sold her the ribbon the day before being a snake dancing savage. That fat and opulent 280 pound business man, whose name is withheld because it is so very "Savage," surprised every one by the agility with which he shifted his, perhaps underestimated, weight. Yes,they all handled snakes, as the accompanying pictures bear testimony.

PPER)—GROUP OF SMOKI SNAKE CHARMERS
OWER) GROUP OF SMOKI SNAKE DANCERS

By HANS BOTHE
Prescott, Arizona

But why? Not because they wanted remuneration, but because they ;e enthusiastic over their town, their surroundings, their history, and 1eir golden opportunity to make the world recognize the southwest as i should be recognized.

Be Yourself

A man can only be himself. If he is sincerely himself, there will be €ough who appreciate his honesty of purpose to compensate for those \10 lack appreciation of his efforts.—A. Booster. In the Ambassador and E blicity Digest.

III. Stereoscopy—The Stereoscopic Portrait

By H. D'Arcy Power, M. D.

With Illustrations by the Author

What is here proposed is not merely the amusement of the amateur, but the serious consideration of the stereogram as a special and invaluable method of perpetuating the memory of those we love,—of possessing a more than usually interesting memento of our friends, amidst their usual avocations,—of recording in the interest of science, or law, the features and peculiarities of those of whom exact detailed likeness is a first desideratum. The serious use of stereoscopic portraiture is not only commended to the amateur but also to the professional photographer as a field utterly neglected, but capable of yielding good returns when properly provided for. Stereoscopic portraiture as it might and should be is practically unknown, and yet a fine example has qualities with which the regular photograph can in no wise compete. Not only the sense of solidity, but a better and more normal rendering of all the peculiarities of pose and expression that go to give life and personality to an individual. When we thus recall those who have passed beyond, it is with a feeling of the uncanny that we are again brought seemingly into their living presence. In the fields of medical science, anthropology, and criminology the stereogram arranged for biometric record is greatly in advance of the two dimension photograph. The time will come when it will be invariably used.

With such great advantages it may be asked why it has not become more popular? A number of considerations immediately present themselves, none of which are individually serious, but in the aggregate have provided sufficient. For example, the average commercial stereogram frequently has figures and sometimes faces as part of the picture. They usually impress the viewer by their woodeny, not to say marionette-like appearance. Such effects are the result of want of care or understanding but they have created a bad impression. Strained poses and fixed expression are bad enough in two-dimensional pictures where, however, they may be rendered bearable by skillful design; but in three-dimensional space, design becomes a secondary matter, and the portrait must make good on its own merits, and anything like woodiness or vacuity is fatal. To avoid such results the studio needs accessories that are not generally provided and the attempt to do without them, which we generally see means failure and undeserved discredit to the method. Moreover, the field is largely unexplored and contains much to be yet worked out. In the twenty odd years during which I have read practically all the serial photographic literature of Europe and America I cannot remember a single paper devoted to stereoscopic portraiture. The notes I now offer are the results of my own observations, and should be only a beginning

FIGURE 1. By H. D'ARCY POWER, M.D.

and I hope an encouragement for others to pursue. Germany has, I am told, one professional stereoscopic portraitist, and Europe has societies devoted to stereoscopy, but their knowledge has not been made available.

Let us now consider the requirements. There are certain fixed ideas current about stereoscopy, and rules, that are not nearly as rigid as represented. Thus, as much of stereoscopy is given to outdoor scenes and large furnished interiors, with many planes, the first consideration has been to have everything solid and sharp. This means anastigmat lenses stopped down to get depth of focus. The fact is that soft focus lenses may give stereograms of great beauty and naturalness, and a small aperture is often quite unnecessary in portraiture so long as the depth of focus is sufficient to render naturally the planes of head and body, which with short focus lenses is not great. It is true that the setting of the subject must show reasonable stereoscopic definition, but it will be found that an amount of defective focus that would look fuzzy in a single element appears much more clean cut when combined in the stereoscope with its fellow. For verification of these statements I refer the reader to fig. 1. It is taken with my soft focus quartz lens, a 5 inch Kalosat, working at f:5.6, and therefore with no great depth of focus; yet the definition is all that could be wished for, and the objects in the background, while they do not compete with the figure, have a fair amount of reality and stereoscopic effect. It might be here stated that stereoscopic portraits are much more independent of their back-grounds than two plane pictures. The outdoor portrait with a tree growing out of the subject's head, has no such appearance in a stereogram, where the planes remain quite distinct.

FIGURE 2. By H. D'ARCY POWER, M.D.

Another point to remember is that stereoscopic negatives, especially of faces, cannot be retouched; unless the marks were identical and on identical parts of the two elements, they would only show as foreign matter on the surface. The eye is capable of blending marked differences of color and to some extent of form in the two elements, but allows of no change of surfaces. Dust on the negative or print appears as foreign matter lying between the eye and the picture. A negative from a soft focus lens calls for less retouching, for the same reason, a panchromatic plate with a light screen is a great advantage.

While individual blemishes cannot be removed with the pencil it is possible to use the method of local coloring of the gelatine, so as to lighten an underexposed hand or one side of the face. I have personal experience of this method for years and with care it is most valuable. Mr. Eugene Muller has given detailed instruction for its use which will be found reprinted in the "Photographic Digest" of this number. The dye he recommends "Coccine-Nouvelle" I have no experience of, nor do I know where it may be obtained in America. I believe that most of the basic red dyes would answer. I used fuchsine and have also tried rosaniline.

The focal length of the lens is somewhat bound up with the question of whether we are taking full-lengths, busts, or heads. The first are well rendered by the usual short focus lenses supplied with stereoscopic cameras, and even busts may be satisfactorily taken if the fore parts of the picture are not allowed to get too far forward of the face. Fig. 2 was taken with a 5 inch lens and there is in the stereoscope no marked exaggeration of the hands. It is also to be remembered that perspectives quite impossible

in ordinary portraiture lose their unnatural appearance in the stereoscope, probably because when looking at a stereogram we observe each detail in turn and for itself, just as we do in natural vision, where objects close to the eye do not appear of unnatural size. When the object of a stereogram is specifically a head portrait, the size of the face from chin to hair line will be in the neighborhood of an inch; I prefer a trifle less. To obtain this size will demand a closer approach to the subject than many cameras provide for, furthermore, the angle at which the two images stand to one another will be increased so that the subject will be partly off each plate. There are several ways of dealing with this difficulty. Given bellows of sufficient length, lenses of longer focus can be used. There are stercoscopic cameras made which allow of approximation of the two lenses. Such approximation should be proportionate to the nearness of approach. (See Camera Craft, July to November, 1922, inclusive.) Failing this, the picture may be made by making an exposure with an ordinary camera, shifting it along a fixed base line for the required distance, and then making a second exposure. Tripod heads with a laterally moving top have been made for this purpose. I have used such a one with good results. If a film pack or roll film be employed the loss of time between exposures need not exceed four seconds, allowing two seconds each for the exposures, eight in all, which is well within the limit of practical exposure time. The same principle can be applied to a stereoscopic camera, without adjustable lenses, by capping one lens, exposing, shifting the camera the necessary distance towards the side on which the exposure was made, then reversing the cap and making the second exposure. It works well for still life subjects. There is yet another way that I described in Camera Craft for January 1912 and will again give details of in a later article. It depends on restoring the diverging images to the plate by means of two supplemental spectacle prisms (No. 8) mounted to slip over the lenses when close-up work has to be done. These are cheap and uncorrected but I have not found the lack of correction to affect my results. There is a non-optical way of getting large heads; that is to take them at a convenient distance, therefore small, and then enlarge only the parts needed, taking care when assembling them that they stand vertical on a common base line. I believe the optical experts, who are very numerous and fierce in the stereoscopic field, have an objection to this, but I possess stereograms so made that look stereoscopic and natural.

Having settled the question of the lens we come to the pose. Here is the field of difficulty and triumph. The studio conventions have no place in stereoscopy. The great point is not merely to obtain the sense of solidity, but to have with it the illusion of life; and the solution lies in occupation. The subject must be doing something, not merely posing —doing things that are constantly done in their lives; let them paint, sew, write, peel apples, discuss with the photographer the morning paper, or loll in indolent ease, but be their daily natural selves. When action

FIGURE 3. By H. D'ARCY POWER, M.D.

is secured the stereoscopic picture will be that of a living person, and not of a statue or marionette.

This means different accessories to those of the average studio, and brains and imagination on the part of the photographer. To fully illustrate the point would demand more examples than will be allowed me, but those given will show what I mean. In the arranging of settings thought must be given to the effect in the stereoscope; thus it will often happen that foreground objects will occupy too much of the available space, and though this may be corrected by trimming, the reduced prints are likely to have a bad appearance on the mount. I think an effort should always be made to arrange the composition that it will completely cover the mount (Fig. 3). When there is doubt about this, at the time of posing, it is better to approach sufficiently near the subject to fill the mount. In the case of heads this is not so important because cut out mounts are here a necessity. In half and whole length portraits the accessories, such as flowers, books, etc. have great need of careful attention; being usually on the same plane as the subject they must compose with it, and tonal qualities must be considered, the latter is particularly important in the matter of flowers, where in the absence of screen and panchromatic plate, yellow and red flowers will spoil the effect by appearing black. Amongst accessories silver and all polished metals have an important place, seen stereoscopically they have a full metallic lustre that is amazingly natural. In the matter of dress, simple beautiful lines are as important as elsewhere, but if dress is to be shown for its own sake, especially fancy dress, then the stereogram is quite unrivalled, chiffon, lace, jewels are rendered as no other medium can do, spangles and diamonds actually sparkle. (See Fig. 4.)

FIGURE 4. By H. D'ARCY POWER, M.D.

Softness the result of unequal focusing of the elements.
Note the spangles on the dress and the diamond in the ring.

The negative: more than in other forms of portraiture needs to be fully developed but thin, unresolved shadows or unprintable high lights are utterly bad. As panchromatic plates are what should be used, the tendency that they have to hard development must be carefully guarded against. The printing medium is a matter for consideration. Habit has established the glossy or semi-glossy print, and it is true that there is a great increase in the illusion of reality when the surface is like glass. On the other hand, quite good stereoscopic effects are possible when a paper is as coarse as in a half tone printed in a magazine. The objection to the glossy print is the ease with which the surface is injured which quite destroys its realism. I prefer a hard semi-matte. A black and white print is utterly unsuited to portraiture. Where the best results are aimed at carbon or carbro should be used. I have obtained very pleasant results by sepia toning, and then treating in the sulphocyanide of gold bath until the flesh has just changed to its proper color, which will be quite in advance of the mass of the print. Also we must remember that we can use transparencies with wonderful realism, and attain the acme of life likeness by using the Lumiere or Agfa color plate. It only remains to speak of the mounting of the picture elements. This I have already referred to in a previous article. I look forward to the time when the manufacturers will provide us with a reasonable assortment of openings and means for slipping the prints in from behind. At present I often have such mounts cut.

HIMSELF By H. D'ARCY POWER, M.D.

In the stereoscope the exaggerated perspective of the legs disappear and the break in the background loses its importance—but both these conditions should be avoided, as one-half of a stereogram may be an acceptable portrait in itself.

Spring-Time Photography

By Cyril E. Lamb

With Illustrations by the Author

Spring, the time of singing birds, of bursting bud and opening flower, is the time of probably the greatest opportunity for the amateur camera enthusiast. If he is anxious to obtain pictures which will be a welcome variation from the average run of snap-shots, such as John and Mary at the picnic or the children playing on the beach, he can find on every hand subjects which permit artistic handling in an almost endless variety of ways.

Of all the many branches of spring-time photography one of the most delightful is the making of flower studies. Whether we live in the country or in the city we are never many miles from wild flowers which, with proper treatment, can be photographed and made to provide enjoyment not only during their brief span of life, but throughout the year and in the years to come. How much better it is to imprint the image of the flower upon the sensitive plate or film, where it can be preserved through the years, than it is, ruthlessly, to pluck it solely for the few hours enjoyment it can give us as a fresh flower.

When we begin to talk about such subjects many amateurs immediately think of expensive cameras and complicated apparatus, but neither is at all necessary or desirable, especially if we are to photograph the

flowers in their native surroundings. Lightness and portability are the prime requisites in such cases.

Any ordinary folding camera may be used providing it can be equipped with a combination back, permitting focusing upon the ground glass. This combination back, a plate holder or two, and a portrait lens (which simply slips on over the regular lens) is all the special equipment necessary. Plates or cut films must be used, but they are no more expensive, and in fact are a trifle cheaper, than the more common roll film. If you have a small, light tripod take it along when you go flowering, but it is not a necessity for with a little ingenuity something can be found or improvised on which to rest the camera during the making of the exposure.

All right, here we are at a little woodland dell, and just over yonder is a clump of the beautiful trillium grandiflorum or wood lily. Approaching it we walk carefully around it, noticing from which side it shows the most artistic composition as well as the best lighting effect. Then we get out our camera, set the shutter speed indicator on time, open the shutter, open the lens aperture to its greatest extent, and slip the portrait lens over the regular lens. Setting our camera on some solid support, such as a low stump, a rock or a log, we slide the bellows forth and back until the best and most beautiful lilies are in the sharpest possible focus on the ground glass. We quickly find that there are twigs and dead leaves which interfere and spoil the artistry of the picture, so we carefully remove them, at the same time avoiding clearing up the surroundings to such an extent as to make them look unnatural. Once more we examine the image on the ground glass, and finding that it now suits us, we close the shutter without moving the camera in the least, set the shutter speed for bulb, and stop the lens down to a very small aperture, say US:32 or f:22, depending upon which system of marking is used on the shutter. Then we remove the ground glass, slip in the plate holder, withdraw the slide which covers the plate, and we are ready to make the exposure. The wind is blowing a little, so we stand for a few moments with the shutter release held in the hand, and when we notice that the flowers have ceased for a moment their nodding and swaying we press the release and give the plate a very short exposure. We can't take the picture as a snapshot, but if we give it more than the shortest possible bulb exposure the plate will be hopelessly over-exposed unless the flowers are in a very shaded situation, or the day is extremely dull and overcast. A little experience at this point will teach more than reams of advice.

A little further on we can see a fine cluster of blue violets. These are treated in the same manner, except that here we find that it is a little more difficult to focus properly because the flowers are smaller and less distinct than were the lilies. To overcome this difficulty we place a business card (or other small piece of card or heavy paper with good clear printing on it) in the center of the clump of flowers. We focus upon this card, with the camera lens wide open, then, when we stop the lens down to a small

aperture it will bring the flowers both in front of and behind the center in sharp focus also. Let's not forget, though, to remove the card before we make the exposure.

Yellow flowers are rather difficult to photograph owing to the fact that yellow has almost no effect on the photographic plate, and the flowers are therefore almost black in the finished picture. They can be photographed by using a ray filter, but this presents new problems in exposure, and the beginner in this branch of photography will probably be happier if he leaves the yellow flowers until he has become quite familiar with the work.

Beautiful conventional designs may also be made with flowers, but such work is best done indoors. If the flowers are carefully plucked and immediately wrapped in damp paper and kept as cool as possible they can usually be brought home and arranged and photographed before they fade perceptibly. If one wishes to have the most satisfactory arrangement for photographing the flowers indoors a device can be built which will hold the camera facing straight down. The blooms are then arranged upon a large piece of ground glass, behind which is some neutral colored background such as grey bristol board, for instance, the color and material depending upon what effect we wish to obtain in the finished picture.

Very satisfactory results can be obtained, however, by laying the flowers on a slanting background of suitable color and then tilting the camera so that it is approximately parallel with the background. A section of discarded window shade makes an excellent background, but it must be smooth and unbroken or the resulting picture will be anything but pleasing. A spotty background should never be used, as it distracts interest from the subject and ruins the whole composition.

Indoor work of this kind is best done near a north window, if possible, because the light is more constant from that direction, and reflectors of white cloth or cardboard may be used to lighten the shadows and control the general lighting effect.

The films or plates usually give best results when developed in some developer which will produce soft results, as there is apt to be plenty of contrast anyway, and if we increase it by using a contrasty developer a "soot and whitewash" result is liable to follow. Pyro developer, used at a temperature of 65 degrees, is good, and development should be carried on until there is good detail in the shadows. Too prolonged development, however, will produce negatives with a reddish stain, which, while doing no harm as regards the quality of the negative, require a much longer exposure to the light when making prints.

Enlargements of the flower studies, on rough or semi-smooth paper, sepia toned, make beautiful decorations for the home; and with what satisfaction we view them and what pleasant memories each one calls to mind as we remember the auto ride or the tramp through the lovely spring-

(UPPER)—TRILLIUM
(LOWER)—ARBUTUS

Copyrighted
By CYRIL E. LAMB

Fair trailing arbutus, out of the cold brown earth you bring a promise of blessing and gladness, and the first sweet breath of spring.

(UPPER)—BLOOM OF THE LOCUST TREE
(LOWER)—MAGNOLIA OR TULIP TREE

Copyrighted
By CYRIL E. LAMB

time countryside, the search in the woods for the fragrant blooms, the difficulties overcome in the making of the pictures, and the pride with which we viewed each new finished photograph. If one has the inclination and the time, even more beautiful results may be obtained by tinting the flowers in their natural colors.

FIRST PRIZE (1923)
Group Class
(P. A. of P. N. W., Victoria, B. C.)
By CHARLES WEST STUDIO
Vancouver, B. C.

VII. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from March Issue)

CHAUNCEY M'GOVERN

"Foto-MICROGRAFIC" "Contact Prints" vs. "Bromide Enlargements":

It is not at all my desire to denounce nor to belittle the making and showing of "bromide enlargements" in the courts. I am all too well aware that bromide enlargements may occasionally be quite necessary, and in most cases they are useful. But the fact remains that "direct enlargements",—that is, "contact prints" from negatives where the writing Foto-GRAFED is enlarged, directly, on the plate or film itself, —are much better than prints made by the "bromide process" where the paper does not "contact" with the negative.

It must be plain to all that with a distance of from four to ten feet of space between the negative and the fotografic paper, the resulting "bromide enlargement" could not possibly be as clear and sharp in tiny details as is the case when the paper is of the glossy variety; is placed in absolute contact with the negative in a tightly-closed printing frame; and where the resulting prints are perfectly squeegeed.

This situation is well expressed by L. G. Rose in his work, "The Commercial Photographer", on page 84, in the chapter on "Legal Photography," in the following words:

"It might be well to mention, before going any further, that there is considerable difference between a direct enlargement and an enlargement from a negative. In making a direct enlargement, the texture of the paper, the shading, in fact, every minute detail, is enlarged correspondingly; while, if a negative same size (or a reduction negative) is made, the texture, for instance, is lost to a more or less degree, according to the reduction, and you cannot enlarge something you have not got on the negative.

*Copyrighted, 1923, by More Money Publishing Co.

"If a chemical has been used to eradicate the original handwriting, the substituted wording can generally be detected by the difference in the shades of ink used when enlarged directly.

"This is where a moving picture lens, of a focus of (say) two inches, comes in very handy, for you will have bellows enough on an ordinary studio camera to make an eight, ten or twenty times enlargement direct."

A particularly apt set of quotations of views of authorities on this point is given by Albert S. Osborn in his "Questioned Documents", on page 39, where in a foot-note he quotes as follows:

"The mere MOMENTARY ENLARGEMENT of the signatures one by one by each juror for himself with the aid of a magnifying glass, giving different effects according to the place where he holds the glass, must be regarded as a poor substitute for the PERMANENT ENLARGEMENT of all the signatures alike by magnified copies which are the same to all the jurors and do not vary on different examinations.—Editorial Comment by "B. A. R.," in L. R. A., 35:813 (1897).

"Appellees had the signature in contest and two other signatures of the testator, one at the foot of a check, and the one on the back of a note, both clearly genuine, enlarged and reproduced by photography. These photographs were exhibited to the jury after proof by the photographers of their accuracy. Appellant complains of the admission of the photographs. But they were only a more enduring form of exhibiting the signatures to the jury as under a magnifying glass.—First National Bank vs. Wisdom's Ex'rs. 111 Ky., 63 S. W. Rep. 461 (1901).

Overcoming Lawyer's Objection to "Pictures"

If any old-fashioned lawyer should raise objection to the "introduction" in court of any Foto-COPIES, Foto-GRAFS or Foto-MICROGRAFS, or bromide enlargements, they can be offered, instead, merely as "illustrations" of the testimony of the expert witness then on the stand. In that manner these pictures are just as effective as if they had actually been admitted as "exhibits" in the case.

All fotografers should impress upon lawyers that what the living human brain is to the human eye, the LIVING chemically-sensitized fotografic **plate** is to the camera's lens—but ONLY TO A CERTAIN EXTENT. The human BRAIN can SEE things, through its eyes, which the CHEMICAL PLATE (the camera's BRAIN) can NOT see at all; yet, on the other hand, the CAMERA'S BRAIN can see, thru its eye (lens), many things which the human BRAIN cannot see, not even thru a camera lens or thru a MICROSCOPE. Thus, if INK writing, done with IRON INK, is removed from a piece of paper WITH A CERTAIN CHEMICAL, the human BRAIN cannot SEE it thru the human eye alone or thru the aid of a MICROSCOPE (if the SEEING is done DIRECTLY on the human brain) —BUT the INK MARK has NOT, REALLY, BEEN ERADICATED: It has actually only been PARTIALLY eradicated. And while the human eye and

brain combination can NOT see the partially remaining ink-marks, they CAN be SEEN and READ by the LIVING chemically-sensitized fotografic plate if there is interposed the RIGHT light-controlling lens. (Of course, not ALL fotografic plates have this power,—such power being confined to a few brands like "Process", etc.)

Use of "Color Screens" or "Ray Filters" Imperative by Forgery Fotografers

No camera operator can hope to do even passingly fair justice to the general work of making Foto-GRAFS or Foto-MICROGRAFS of documents in dispute unless supplied with certain color screens.

While I would not confine any operator to any definite number of such filters, yet satisfactory work cannot be secured unless he have the following screens: K-3; A (Red); B (Green); C (Blue); F (Deep Red); and the G (Yellow).

None of the text-books which have come to my attention have been written by persons apparently well-informed on the making of negatives of writings. Therefore the books are somewhat puzzling to a reader who seeks guidance on the use of Color Screens in Documentary Fotografy. So I have compiled a "Color Filter Chart", which hangs above the Filter cabinet, for quick and easy access. It follows:

Color Filter ("Ray Screen") Chart (Wratten):

Chart Compiled by Handwriting Expert Chauncey M'Govern, after many years' experience in making Foto-GRAFS and Foto-MICROGRAFS of Pen and Pencil Writings and Typewritings on Documents in Dispute; where the Paper-Stock was of White and Various Colors, and where the Inks and Pencils and Typewriter Ribbons were of Various Makes and COLORS.

Color of Subject	To Render DARK in the Print use:	To Render LIGHT in the Print use:
Red, Scarlet	Commercial Film; (NO Filter)	Panchromatic Film; "A" Filter
Red, Deep	Commercial Film; (NO Filter)	Panchromatic Film; "F" Filter
Magenta and Purple	Panchromatic Film; "B" Filter	Panchromatic Film; "F" Filter
Yellow	Commercial Film; (NO Filter)	Panchromatic Film; "G" Filter
Green-Yellowish	Commercial Film; (NO Filter)	Orthochromatic; "G" Filter
Green-Bluish	Panchromatic Film; "A" Filter	Panchromatic Film; "G" Filter
Blue	Panchromatic Film; "F" Filter	Commercial Film; (NO Filter)
Several Colors Simultaneously	To render in relatively correct gradations of Black and White use: Panchromatic Film; "K-3" Filter.	

Illumination, for "Copying" Documents and "Enlarging" from Negatives

After using all the well-known makes of lamps and other light sources, it is my belief today that the best general illumination for "copying" documents is furnished by the Cooper Hewitt mercury vapor tubes,—the M tubes for cameras less than 8 x 10, with the U tubes for any camera from 8 x 10 up, with PU tubes for 11 x 14 films.

(To be continued)

FORTHCOMING EXHIBITIONS, 1924

May, 1924—First Annual Exhibition—Fort Wayne Art School and Museum. Last day for receiving prints, April 15th, 1924. Particulars from Karl S. Bolander, Director, Fort Wayne Art School and Museum, Fort Wayne, Indiana.

October-November, 1924—San Francisco International Salon. Last day for receiving prints, September 29th, 1924. Particulars from H. A. Hussey, 64 Pine Street, San Francisco, California.

A CORNER IN CHINATOWN By P. DOUGLAS ANDERSON

Exhibited at the London Salon, 1923, the San Francisco-Oakland Salon, 1923 and the Pittsburgh Salon, 1924.

An Analysis of "A Corner in Chinatown"

By Sigismund Blumann, Efficiency Engineer

Certain artists have assumed the position that any picture that tells story is merely illustrative. The word merely is theirs, not mine. If ıe exaltation some illustrations have given were to be compared to the ıin certain abstract works of art have inflicted, there would be a large ılance in favor of the illustrator.

And this pertains to Mr. Anderson's picture in that it might be ac- sed of being of the sort which tells a story and is "merely" an illustration.] is a good print and a real picture. So fine that not even the fragment (a man sliced off by the corner of the building at the right, or the mildly ıtrusive walking man and running child across the street can damn the vıole.

The print in front of me has a quality of tone, a composition, and a local interest that create an emotion purely pleasurable. I might speak of the triangles, the horizontals and the perpendiculars, the patine and the planes, but more learned critics with their mental instruments of precision and analytical equipment can better perform the laboratory tests.

The most profitable way for the novice to learn what is good in pictures so accepted is to study them with a view to discovering their merits. Unfortunately, too many begin with a cynical distrust of the judgment of others and with a worse than pessimistic faculty for seeing real or fancied faults and faults only.

But I do wish that slice of man had not been there and that the strider and the runner had moved faster and been out of sight when the shutter snapped. Darn the luck.

How the Picture "A Corner in Chinatown" Was Made

By P. Douglas Anderson

Naturally I had the advantage of the reader in seeing Mr. Blumann's analysis of my effort in advance of publication. Leaving the matter of judgment as to merit and defects entirely to him, I still wish to state: "That darn the luck" or otherwise, luck had no part in the getting of this picture.

Different people have different ways of making pictures; and no two, as a general rule, make a picture in the same manner.

The streets and corners in Chinatown have always a peculiar fascination, and it is only natural that one should try to portray by photography some of that mysterious, misty, elusive effect which is always associated with it.

Before the picture was made I walked all over this part of our city looking for a corner that would enable me to carry out the scheme I had in mind. The corner finally selected, the next thing to determine was the time of day for the best lighting effects. Then to wait for a day when the sun should be shining through a slight haze. The reason for this was that such a day would help to portray that mysterious, misty feeling that is always associated with Chinatown.

Such a day finally dawned and I made my way to the selected corner and began a long wait.

I made several exposures, which were not satisfactory because of the placing of the figures. I had about decided to give it up for that day when conditions decided me to make the picture shown in these pages.

The 4 x 5 R. B. Auto Graflex was fitted with a Verito lens, 8¾-inch focus. The exposure, 1/50th second at f:6. The Eastman Super Speed Cut Film was tank developed in pyro and an enlargement made on Artura Carbon Black, E rough, developed with amidol.

CAMERA CRAFT

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The Pacific Coast Convention

At last the Pacific Coast is to have a really big worth while convention. The plans have been perfected in San Francisco recently, when Mr. J. A. Zinn, Jr., President of the Photographers' Association of the Pacific Northwest, met with the Executive Board of the Photographers' Association of California and later in an open meeting the members of that body.

The convention is to be held in Portland, Oregon, the last week in August, and photographers west of the Rocky Mountains should plan to attend.

A well balanced program is being arranged that will undoubtedly appeal to all photographers and from which they should derive much information that will not only be instructive, but will prove very beneficial when applied to their business.

In addition to the talks and demonstrations there are many other benefits to be derived from attendance at a convention. The various displays of new apparatus and supplies by the different manufacturers and dealers are well worth the time and energy spent on the trip. Not only can the photographer see and examine the very latest in photographic equipment and get first hand information regarding it from the manufacturers' representatives, but he will see similar lines of photographic goods, compare them, and make his decision as to which he desires. This alone is one very desirable feature and yet there are many others.

Getting better acquainted with your fellow photographers, talking over your photographic difficulties with them and having them express their views as to how they overcame similar difficulties is also very desirable and helps to create and cement that bond of good fellowship which has to exist between photographers if they intend to benefit and uplift their profession. In doing this, they are making their organization stronger and more helpful, thereby enabling all to make a better living with all the kindred benefits that go hand in hand with it.

Each number of Camera Craft, from this date until August, will contain all the available news about the convention. Who the demonstrators will be, their subjects, etc.; how the California Contingent will travel, by boat, automobile caravan or otherwise; and any other information that will be interesting to our readers. P.D.A.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

We haven't said much about the "100%-ers" lately because we hoped the apparent wave of modesty would pass off and we would have a large list to report. New memberships have been coming in at a gratifying rate but so few of them bear the endorsement of an old member, or in any other way show who should be given the credit for boosting the Association. However, we'll be as good as our word and give credit where credit belongs, to the following who may be added to the list published some time ago—Philip Filmer, D. A. Harbaugh, Winton B. Medlar, F. W. Wildy and J. F. Collins. Good work, Boys, we welcome you to the ranks of the "100%-ers" and while "Modesty may be a virtue," we are glad to see you lay it aside for this once.

Speaking of new members—the circulars sent out by President Stearns to 16,000 photographers has started off with a bang. Eight were received in the first batch on March 1st, which is a reasonably short time after their release.

Once again we wish to call the attention of old Association boosters that NOW is an opportune time to get your one new member for 1924.

Traveling Exhibits

It looks as though the five Traveling Loan Exhibits will hardly be enough to keep pace with the ever increasing demand for them as Spring draws near. We have one in the Rocky Mountain section that we would like to keep out there to avoid excessive mileage back and forth, but the other four are very busy east of Iowa. All four have assignments for April 1st at Studio other than their present location, and then follows an assortment of dates through April, May and June. There are aproximately thirty-five photographs in each set, taken from the Washington Convention and are proving a material aid in adding interest to the opening of New Studios and private Spring exhibits.

Try to give us at least three weeks' notice if you desire a Traveling Loan Exhibit. They are available to members of the P. A. of A. with the understanding that the pictures will be carefully repacked and expressage prepaid to the next fellow.

Winona School

We haven't much comment to make on the School, it's sort of moving along, on its own momentum. Registrations are still coming in, and at this writing the Prospectuses have not had a chance to produce results. These have been mailed to all inquiries about the School and will be sent to any more who may request them. With only 125 reservations, to be made, registrations are no trifling matter this year, if you really expect to attend the School of Photography of the P. A. of A., under the direction of W. H. Towles of Washington D. C. Tuition $50.00, Registration fee $10.00, balance payable at the School.

Membership Letter

What do you think of it,—the Membership Letter and Advertiser from President Stearns? Of course you have received your copy by this time, they were mailed to every photographer in the United States and Canada. We will now know that any photographer who inquires about the benefits to be derived from Membership in the P. A. of A. was accidentally overlooked in the mailing and will be pleased to send him a copy. The Code of Ethics, you will note, is on the reverse side of the membership application.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

Photographers' Association of California. Monthly Dinner and Meeting held at the Hotel Bellevue on Monday, March 10th, 1924.

President Morton: Under the heading of Reports of Officers, I would like to report that a meeting of the Board of Directors took place this afternoon, at which Mr. Zinn, President of the Photographers' Association of the Pacific Northwest, was present. Mr. Zinn addressed the Board, inviting our members to attend the Portland Convention and advocating a consolidation of the California Association with that of the Pacific Northwest. The Directors passed a resolution endorsing the idea. I will now call upon Mr. Zinn to extend the invitation of the Northwest to us.

Mr. Zinn: Mr. President and Friends: There has been a general discussion in the Northwest regarding the possibilities of organizing a Pacific Coast Association, taking in everything west of the Rocky Mountains. Last year, at our Victoria Convention, we were approached by two of your delegates, Miss Dahl and Miss Reed, and after, I think, a two hours discussion, we were able to adopt a resolution stating that we would abandon a Pacific Northwest Convention in 1924 and support California and the National Association. Since the Victoria Convention last August, our Board has done very little towards collecting memberships or making any plans for the 1924 Convention. As a matter of fact, we all had our hearts set on coming to California, so much so that we got 150 pledges to charter a boat leaving Seattle and come to San Francisco.

Then we received a telegram from Clarence Stearns, in which he stated that the National Convention was going to be held in Milwaukee in 1924. About a week elapsed before we knew what to do; but, in the meantime, I received a telegram from this Association asking whether we would entertain the proposition of consolidating in Convention this year. It came in the most opportune time, because of the feeling of deep disappointment that was upon us. Our membership in the North feels that there should be a Pacific Coast organization and, after much discussion and two meetings which we held in Portland, we decided that we would like to have the entire membership of the California Association attend the Portland Convention, at which we would try to entertain you and demonstrate our friendly feeling. At that time we may be able to bring about a consolidation, making a Pacific Coast Association, provided that our Conventions could be held yearly, one North and one South of a certain line.

Last year, at our Victoria Convention, we were able to show a profit in our treasury. Our attractions were fairly good, our entertainment was very good, and I think we brought about a better understanding between the Photographer and the Dealer.

I have personally been delayed in coming down here for some time, more or less because I have been sending out questionaires to several successful photographers throughout our five Northwest States. While the feeling generally was towards a Pacific Coast Association, I did not feel that our Board wanted to take the responsibility of pledging any particular thing to the California Association; but, out of fifty letters that I sent, I had received, up to the time I left Seattle, thirty-five answers, and only one of these thirty-five returned letters stated that they were not in favor of a Pacific Coast Association. So I am very certain of the feeling in the Northwest in favor of it. We desire a delega-

tion of the entire California membership here to come to Portland this year and attend our Convention; and I am sure you will all be received with open arms. There is not any question in my mind of our being able to put over, at that Convention, some basis of consolidation, which I certainly think we should have. As a matter of fact, my coming to San Francisco, I assure you is with the approval of practically the biggest majority of our entire Northwest Association; and I would like to see everybody in California do what we intended to do—come up by boat—and see exactly what we can do in the Northwest. The Northwest Convention is going to entertain you, but we are not asking California to subscribe to any of our expenses in any way, shape or manner; we want you to come as guests and enter your pictures for rating in our competitive classes.

We are going ahead with the Portland Convention and have started on our plans, and look forward to both California and the Northwest getting together and demonstrating a successful Pacific Coast Association. If you will come to Portland and help organize the Pacific Coast Association the first 1925 convention will be awarded to San Francisco. (applause)

President Morton: I think it shows a very generous spirit to extend this invitation to us and not ask us to assume any expenses but try and perfect plans for a consolidation; and I think the most gratifying thing to Mr. Zinn tonight would be our starting the ball rolling by getting up a party to go North, and I would like to hear some expressions in regard to this.

Mr. Lancaster: It might interest the members here to know that at the meeting this afternoon the offer made by Mr. Zinn was accepted by the Board. In order to make it official all acts of the Board must be endorsed by the membership, I will move that the action of the Board in accepting the offer from the Northwest Association for us to attend the Convention in August be endorsed by this meeting.

The motion of Mr. Lancaster was duly seconded and put to the meeting. On a vote being taken, it was carried unanimously and so declared by the Chairman. Twenty of those present gave in their names for reservations for the trip.

Mr. Zinn: The plan that we had in Seattle was to charter a boat and charge a lot of this expense to advertising. We planned to assemble in the City of Seattle from all our different districts, and for that purpose we were going to get all the yellow taxicabs and drive down to our boat, showing the moving picture people and the weekly papers that there were plenty of photographers, and see that they had pictures of us that they were to use showing the concourse of photographers who were going to the Convention at San Francisco. And we were to see that the boat was properly decorated. We were also to plan the whole of our meetings while on the boat; and we were to take an orchestra and two entertainers down with us at the same time. We felt that the advertising that we could get in all the papers of all the little towns down the line that would publish all these pictures would be a good boost to photography.

President Morton: It was our intention to allot thirty minutes to the answering of the questions which have been distributed among you; but I think it would be better on the present occasion to go right on to Mr. Dassonville's talk on "The Art of Photography."

Mr. Dassonville's Talk

The Art of Photography

(Editor's Note:—It has been necessary to omit the greater portion of Mr. Dassonville's talk on art since he illustrated many things by use of a black board and we are unable to give these illustrations.)

Mr. Dassonville: Fellow Members: It seems my lot when addressing you to try to make a rather intangible thing tangible, and that is again true tonight. We are going to try to speak on "The Art of Photography",—rather complex, because it is a very difficult thing to define. To define Art is difficult; and I rather thought, before the meeting tonight, that if I could settle upon some simple definition of Art, as applied to photography, we might build a conclusion from the definition, and so simplify matters. Therefore, I am going to offer to you tonight, as a definition, this: "An harmonious arrangement of form and mass in correct value." When

it comes to sound, our ears will instantly recognize harmony, but our eyes do not recognize harmony of form with the same ease—certain training is necessary.

There are certain fundamental rules of harmony. Particularly is that true in landscape photography, where the lines are very simply marked in their relative position and area. In portraiture, it becomes more complicated, particularly in group arrangement, where you have circles to consider and harmony of form in other relationships. I have brought along a few of my own prints to illustrate some of the points I want to make.

If a tree trunk or larger mass should split the picture quite squarely in the middle—a very common fault in landscape photography—it is almost impossible to produce an harmonious arrangement.

When we get our center object to the side, we get a sense of general proportion, and we can begin to arrange our composition, because the arrangement is flexible. You can then begin to introduce trunks of trees and forms or whatever you want and get a relationship of spaces and a sense of harmony comes in.

The matter of areas is most important. This is a matter which I learned, with a great deal of interest, from a painter friend of mine a great many years ago. He was attempting to explain to me the nature of masses. Getting out three coins of the same area—three dollars—he arranged them as a triangle, then he took away one of the dollars and put a fifty-cent piece in its place, then a twenty-five-cent piece for the other dollar. By shifting these three pieces into various positions he rapidly illustrated the relationship of areas.

It is an interesting thing as to what constitutes the optical center of a print. It is almost the center of the principal light mass. The optical center of the light is the proper center of the picture. The painters, of course, have the great difficulty that they have added color to their scheme; we have nothing but black and white.

When Mr. De Gaston spoke before the Association I was unable to be present, but in reading his notes I saw something that interested me. It was that photographers today pay too much attention to the paper which they use. This is correct from the point of view from which Mr. De Gaston was speaking but from another point of view it can safely be said that it is impossible to pay too much attention to the paper upon which the print is to be made.

To illustrate what I mean I have here a portrait of John Henry Nash, one of the big American printers. The print is on his own paper which he had made by hand in Holland, it is very rough. You cannot conceive of using it for a woman's or a child's portrait. But there cannot be a lovelier paper for a man's head, big, broad. It is impossible to pay too much attention, actual attention, to the paper which you use, or to say how much the very character of the paper can enter into the making of a portrait and give a broad sketchy feeling to it. You cannot get such a portrait on a smooth paper. It is absolutely impossible for a woman's portrait, which should be on a smoother paper.

For the Professional

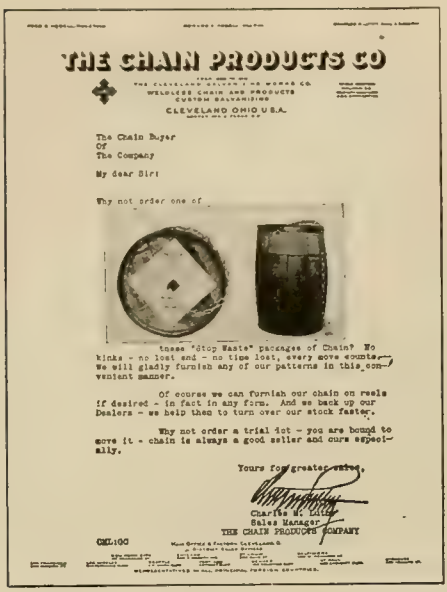
In the Interest of Commercial and Portrait Photographers

he Use of the Photograph in the Letter*

Visualized selling by portfolio and illus-ation is coming to play an ever-increas-ig part in modern salesmanship. This as added emphasis to the visual idea, and the illustrated letter has come in for attention.

Many forms of such letters have been used from the illustrated letterhead to the photographic illustrations pasted in the

Courtesy of Printers' Ink Monthly



THE CHAIN PRODUCTS CO

CLEVELAND OHIO U.S.A.

The Chain Buyer
Of
The Company

My dear Sir!

Why not order one of

these "Stop Waste" packages of Chain? No kinks - no lost end - no time lost, every move counts. We will gladly furnish any of our patterns in this convenient manner.

Of course we can furnish our chain on reels if desired - in fact in any form. And we back up our Dealers - we help them to turn over our stock faster.

Why not order a trial lot - you are bound to save it - chain is always a good seller and ours especially.

Yours for greater sales,

Charles H. [illegible]
Sales Manager
THE CHAIN PRODUCTS COMPANY

CHL-10C

THE PHOTOGRAPH ON THIS LETTER GIVES THE PROSPECT A GOOD IDEA OF THE PRODUCT AND ARRESTS HIS ATTENTION SO THAT HE WILL GIVE THE LETTER A THOROUGH READING.

body of the letter. The latter plan has been used by The Chain Products Company of Cleveland, Ohio, with unusual results.

The packing and selling of chains offer many difficulties. When the hardware dealer wishes to cut off a length of chain from the keg, he pulls it out from the top and then after he has cut it, it is very apt to slip back.

The Chain Products Company worked out a unique feature in packing the chain. The chain itself is put into an ordinary keg, well constructed and strong, reinforced by four steel bands. The chain is prevented from slipping back by an unusual feature. A small hole about one and one-quarter inches in diameter in the top of the keg is covered by a small stiff leather flap tacked by one end to the top of the keg. The other end of the flap is cut into a "V" notch which extends just over the edge of the hole on the opposite side. The chain can easily be pulled out of the hole since it raises the flap and permits a free passage of the chain. But when the pull on the chain ceases, the notch of the flap catches between the links and virtually acts as a trap door, preventing the chain from going back into the keg. Hence the free end of the chain is always convenient for a quick withdrawal of more chain, besides the chain remaining in the keg is properly protected, kept clean and not a link is ever wasted.

When the keg leaves the factory for shipping to retail hardware dealers the protruding end is held securely by a finger loop which permits the chain to be withdrawn only after the paper seal over the hole is broken. A close analysis shows how well this container meets the requirements of holding the right quantity of one size of chain that has been found is usually carried in stock by the average hardware or plumbing store. Secondly, the container is strong and rugged so that it is never damaged in transit no matter how roughly it is handled. It is sturdy enough to permit more kegs being piled on it, so that it can easily be stocked.

To point out all the advantages of such a container in a descriptive letter is obviously a difficult matter. The Chain Products Company decided to try the illustrated idea in competition with one that was not illustrated.

A list of 1200 hardware dealers was selected. A long descriptive letter was mailed to 600 of these dealers, the illustrated letter being mailed to the other 600.

Thirty-two replies were received to the letter not containing the illustration of the idea. One hundred and ten letters were received to the one in which the photographic reproduction of the article was attached as part of the body of the letter. The company's salesmen found that in addition to securing almost four times as many replies the letter containing the illustration was saved by dealers and referred to often. Very few were thrown away.

Since the photographic illustration saved several paragraphs of descriptive matter and has the other advantages referred to the company is convinced that there is no comparison between the two letters.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

II. TONING BROMIDE PRINTS*

By Douglas R. Hill

(Continued from March Issue)

For a full rich brown tone, I consider the color obtained by the iodine bleach can not be equalled by any other method. This is, however, purely personal taste. When using the iodine bleach, the image bleaches out entirely and the paper support assumes a dark blue color owing to the iodine taking effect on the starchy parts of the paper.

When bleaching is considered complete the image appears as a negative. The print is rinsed in water and placed in a clearing bath of sodium sulphite and sulphuric acid, or as an alternative, a dilute solution of potass. metabisulphite. This bath clears the blue color out of the paper and leaves the film a pale yellow with the image completely bleached. If any grey of the image is visible, wash the print and return it to the iodine bath. The sulphide bath itself will discharge the blue color, but it is advisable to clear the image before sulphiding, to see that bleaching is complete. As a re-agent with the iodine bleach, ammonium sulphide gives the best results, but sodium sulphide can be used in its place. A word of warning. When using ammonium sulphide, be sure that everyone whom you respect is at a distance, and get well out of doors before lifting the cork. If you don't get out of doors you will be quickly put out, for the smell given off by ammonium sulphide is very unpleasant and very penetrating.

Formulæ for the iodine process are:—

Bleach:—

Potass. iodide	30 grains
Iodine cryst.	3 grains
Water	10 ozs.

Clearing Bath:—

Sodium sulphite	60 grains
Sulphuric acid	18 min.
Water	10 ozs.

Or:—

A dilute solution of potass. metabisulphite.

Redevelop:—

Water	8 ozs.
Ammon. sulphide	30 min.

Or:—

Ordinary solution sodium sulphide.

Another favored complete bleach for sepia toning is potassium ferricyanide and ammonium bromide. In place of the latter, potassium bromide or even common salt can be used. When using a pot. ferricyanide bleach, it is of the utmost importance that the print has been thoroughly washed and is entirely free of hypo. For if any hypo remains it combines with the pot. ferricyanide and forms a reducing agent which dissolves out portion of image which will not redevelop. The neglect of this fact is the chief cause of the lack of quality in the sepia image that was in the original black image.

The following formulæ give the usual ferricyanide bleaches used:—

Potass. ferricyanide	140 grains
Ammonium bromide	180 grains

Or:—

Potass. ferricyanide	160 grains
Water	10 ozs.

For a cooler tone:—

Potass. ferricyanide	200 grains
Common salt	300 grains
Water	10 ozs.

Redevelop with solution of sodium sulphite.

Very rich tones can be obtained with a bichromate bleach, and can be used full strength for complete bleaching, or if diluted six or eight times is excellent as a partial bleach. It acts quite evenly, and there is no effect of double toning. The print should be washed free of the yellow bichromate stain before sulphiding.

Potass. bichromate	90 grains
Common salt	1 oz.
Sulphuric acid	200 to 300 min.
Water	10 ozs.

The most satisfactory bleach for partial bleaching is the permanganate bleach. It is very cheap and very simple. It keeps in a stock solution indefinitely, and acts quite evenly throughout, even with the briefest immersion for brown blacks. Again, it is favored by those in a hurry, as it is stated that incomplete washing after fixing does not matter, as the permanganate kills the hypo remaining. Certainly it does, but as

Reprinted from "The Australian Photo-Review."

I have yet to be told, definitely what takes place in its stead, I am content to wash the print thoroughly before bleaching. Colors obtained by permanganate range from warm black through to sepia, according to the time of immersion.

Stock solutions:—

(1)	Common salt	1 oz.
	Water to	10 ozs.
(2)	Potass. permanganate	40 grains
	Water to	20 ozs.

Bleaching Solution:—
No. 1—6 drams 40 min.
No. 2—4 drams.
Add sulphuric acid 10 minims.
Water to make 8 ozs.
Redevelop in a solution of sodium sulphide.

Before leaving the subject of the bleach, it is of importance that the bleacher is of the full strength required, and does its work thoroughly and evenly.

If the bleaching bath is worn out, the prints will not re-develop in full quality of tone.

Of the sulphiding baths sodium sulphide is the one generally used, and should be obtained in clear crystal form. Ammonium sulphide has the disadvantage of its very powerful and disagreeable odor, but it gives excellent results. It is obtained in fluid form. Barium sulphide is favored by some on account of the practical absence of odor. Barium sulphide leaves a heavy sediment in water, and should be stirred up and allowed to settle. The clear fluid is then decanted for use. Occasionally when sodium sulphide is dissolved, the fluid is of a greenish color; this is due to sulphide of iron, which, for those who are particular, can easily be got rid of, either by allowing the solution to stand for some time or by boiling it. In either case the iron is precipitated, and once precipitated it can do no harm, but it is quite a simple matter to filter it. If you care to go to this trouble with the sulphide you have as perfect a reagent as possible.

Care must be taken not to use a sulphiding solution too strong, as it is liable to cause blisters. It is better to err on the dilute side, for the image will get there in full quality if left long enough, provided your solution is pure. A concentrated solution of sodium sulphide can be made by dissolving 1 oz. in 8 ozs. water, keeping well corked. For use, dilute 1 oz. stock solution in 15 ozs. water. To vary the result obtained by sulphiding a few grains of potass. iodide added to the solution will give warmer tones.

Further variations of tone may be obtained by combining an amidol formula containing no bromide with the sulphiding solution. The more amidol solution used the colder will be the tone. By this method you can repeat a tone if you keep a tally of the proportions used. It is a very great help and a simple plan to have a few tone charts of your favorite methods of toning. Make a couple of enlargements, say 12x10 or 10x8, having a fairly good tone all over, and cut each into six pieces. Leave the top left-hand corner piece of the print the original color as developed. Now take, for example, the permanganate bleach, and immerse in order the other portions of your print. Piece No. 2, say, for 5 seconds, No. 3 for 10 seconds, and so on. These pieces are put through the sulphide bath, and the time of immersion in the bleaching bath is noted on the back of each separate piece. Paste your print together again with thin strips of paper, and you will have a tone chart on hand for future reference. In place of sodium sulphide Schlippe's salt can be used, but as there is doubt about the stability of the result, it is as well to be aware of the fact. The compound formed by Schlippe's salt is readily attacked by the atmosphere. Very rich browns are certainly obtained by its use, but of what use if it is to be regarded with suspicion. Schlippe's salt should not on any account be used after a bleaching bath containing acid. After using the sulphide bath the gelatine coating of the paper will be found to be soft and having a slippery feeling. After a brief rinse in water it is advisable to place the toned print into a dilute chrome alum bath, which hardens up the gelatine and avoids the risk of blisters. A final wash of about 15 minutes completes the operation. It is advisable to remember that when using sulphuric or hydrochloric acid on cream base papers, that the acid acts on the iron in the cream paper, iron being part of its coloring matter, and the acid will upset the color of the paper if used in excess. Again, never add fluid to acid. Always add the acid to the fluid. Greenish spots occur occasionally in a sepia toned print; these are usually caused by

iron rust in the tap water or impurities in the alum. A piece of flannel tied over the tap will act as a filter. Alum can easily be tested. Dissolve 50 grains in ½ oz. of water. Add two drops hydrochloric acid and then add a few drops of potass. ferrocyanide. If the fluid turns a blue color, buy fresh alum.

To obtain the best results in toning a print should be previously dried and resoaked. There is a marked difference in the tone of a print that has been dried and one that is toned straight after fixing and washing.

Sodium sulphide gives better results when used in full daylight. As already mentioned, amidol stands alone as a developer where toning with sulphide is intended, although for softer results metol hydrochinon is to be recommended. There is a very wide field in toning bromide prints, and all and sundry should try and get some individuality into their tones. Get used to seeing chemical names that look ferocious and make friends with them and make them your servants. Try to obtain a color to suit your picture, and always create a feeling of reserve.

Theatrical effects of coloring may be exciting and impressive for the moment, but it is the picture with reserve that "looks the lady," and that lasts. The necessity of a good quality print to begin with is definite, for a bright and sparkling result cannot be had from something dull and flat by toning it, and remember that in other cases mood is spelled m-o-o-d and not m-u-d.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

Retouching Negatives by the Partial Coloration of the Gelatine

[*A method of working-up negatives, of either portrait or landscape subjects, which in some respects is a simpler process than the customary ones of pencil or stump work on the film or glass side, respectively, is that in which the gelatine film is locally stained, to a greater or less degree, with a suitable dye. In a recent issue of "Le Photographe" M. Eugene Muller, after emphasizing the convenience of this method, gives detailed instruction in its practice.*]

The retouching of negatives by the local staining of the gelatine so as to modify the transparent areas of a negative and so weaken the excessively dark shadows of a positive, is not a very complicated process, since the only materials necessary are a retouching desk, properly hooded and preferably fitted with masks for the illumination of a portion of the negative only at one time, two pencils, two sable brushes, a little lampblack and the red dye to be referred to below.

In landscape work the process will be applicable to the lightening of an area of grass, the trunk of a tree, a wall, or the foliage of a bush. In portraiture it is in the following cases that this process will often be of use—the hair, sunken eyes, the upper portion of a face in the shadow of a hat, and the whole face when the subject wears light-colored clothing or has been taken against the sun.

All professionals make use of an old trick, that of applying a thin layer of color to the glass side of a negative, at a pinch by a dab of the thumb and then scraping away this color at the parts at which the outline has been overrun. The inconvenience of this method is at once obvious; the retouching being on the glass side of the negative, there is a great difficulty in arranging that the outline of the retouching shall coincide in printing with the outline of the negative image. Now for the "dodging" of the negative so as to lighten shadows which appear too black in the positive print, there is an ideal method —the local staining of the gelatine film of the negative.

After having examined numerous dyes

Professor Fritz Schmidt declared long ago that Coccine-Nouvelle was best adapted to this purpose. Coccine-Nouvelle is a stable red dye, very soluble in water, which is absorbed almost indefinitely by gelatine. The advantages of staining by Coccine have been thus summarized by Schmidt in his "Compendium de Photographie Pratique":—

1. Any photographer can employ the method without difficulty after a few minutes' practice.

2. It is possible to stain uniformly even very wide surfaces.

3. The outlines of the image can be followed with perfect exactitude.

4. The shadows can be lightened to any desired degree whatever.

5. At any time one can, if a greater depth of staining be desired, resume the painting without any risk of the removal of the dye previously applied.

6. The transparency of this coating, the absence of grain and the accuracy of the outline make it possible to print in daylight negatives so colored and to use them for direct enlargements.

7. The staining is well protected; it cannot become wiped off and it can be damaged only if the gelatine film is itself scratched.

8. The staining can be weakened at any time or even completely removed, without difficulty and without danger to the plate.

It is impossible to cite so many advantanges in favor of handwork on the glass side of the negative.

As regards the actual process we begin by preparing a concentrated aqueous solution of Coccine, to serve as stock solution. We then make ready two solutions for use. For the first (solution I.), we add 1 c.c. of this concentrated solution to 250 c.c.s. of water, and for the second (solution II.) we add 1 c.c. of concentrated solution to about 50 c.c.s. of water. It matters little as to the concentration of this latter solution, which may be varied according to one's needs. But, on the contrary, it is very important that solution I, be not too concentrated. It should be diluted so far that, after working the brush once only across a perfectly clear part of the gelatine, for instance, at the edge of the plate, only an extremely faint rose color should be observed.

It is with this very dilute solution that any attempt at staining must be begun. Two sable brushes will be sufficient; one fine brush, number 2 or 3, for the staining of small areas and a number 4 or 5 for large areas on small size plates. To stain large areas on half or whole-plate sizes, we should use a larger brush, for instance, number 7 or 8. We moisten our brush in solution I. and, having well drained it, we move it over the part of the gelatine film that we desire to make more opaque, without interrupting the action of painting which should be carried out in all directions. It is necessary not to dab nor to make strokes; but the brush must remain in continual contact with the gelatine until the latter begins to feel wrinkled. This is the sign that all the liquid held in the brush has been absorbed by the gelatine. This is the time to re-moisten the brush in solution I., drain it well on the edge of the cup and resume the painting. This can be repeated three or four times until the gelatine is seen to be saturated with liquid. We then allow the negative to dry and continue again later, if the staining is insufficient.

If after the second or third application we notice that solution I. does not give a sufficiently intense color, we begin then with solution II., which is about five times as concentrated. But in any case we must always begin with the very dilute solution I., to prepare the gelatine to take the stain uniformly.

It matters little if we occasionally go beyond the outlines; a stroke of the brush here and there beyond the limits of the part to be retouched will leave no visible trace on the print. But it is possible to proceed in the following manner—keep a little within the outlines and as a finishing touch run a very fine brush round this unstained margin, the width of which should be about half a millimetre. For this a solution III., much more concentrated than the previous ones, can be used.

All these manipulations are simple in the extreme and require only practice. The secret of success is that the first solution shall be extremely dilute, for it is by the

method of superposition of a large number of very thin coats that a perfect evenness of staining may be obtained. One must not attempt to obtain the desired tint at once. For success it is equally very important that the brush should be well drained and should contain very little liquid, for the spreading of the liquid over the plate must be avoided. We repeat once more that the brush must move over the gelatine and must not miss contact with it until all the liquid in the brush has been absorbed by the gelatine.

The retouching being made in red whilst the remainder of the image is in black and the actinic effect of the red on the sensitive paper being different from the effect produced on the eye, it is not always easy to judge when the depth of staining becomes sufficient to lighten the shadows in the required degree. It is therefore advisable to interrupt the work now and again to make on a small piece of sensitive paper a positive print of the retouched part and adjoining areas. If the lightening of the shadow is not sufficient, we turn again to the brush to increase the staining as required.

This manner of working makes it necessary to dry the plate from time to time; which is really very helpful, for in drying the gelatine regains strength to resist the repeated rubbing of the brush. It is, of course, excellent—though not essential—to use the chrome alum fixing bath, in which the gelatine suffers a slight tanning which considerably enhances its resistance and at the same time makes it possible to dry the plate over a flame. This is a considerable advantage owing to the saving of time effected in drying the plate in the course of successive stainings.

If the trial showed that the staining had been carried too far, it would be sufficient to bathe the plate for a few moments in a bowl of water to weaken the stain. If it were for any reason desired to remove the stain from the negative completely, nothing is simpler. It is sufficient to soak the plate for 15 to 30 minutes in a bowl of water to remove the Coccine entirely. In so doing we shall in no way endanger the negative.

Should the retouching prove a failure, it can be completely removed and a fresh start made after the drying of the plate.

Retouching by means of Coccine is such a simple process permitting so appreciable an improvement in the effect produced by some negatives with too deep shadows that it may well be included among the working methods of every photographer.—B. J. of P.

Notes and Comment

Reported by Wm. Wolff

Leopold Hugo of Santa Cruz, took the writer to his new home on the heights. It's a marvel! It was built just for two people and cost about ten thousand dollars. It stands on a triangular lot on a corner with an outlook on all sides. Both Mr. and Mrs. Hugo deserve lots of credit for laying out the plans—100% perfect.

C. C. Green is again in Salinas having bought the Vassar Studio. Mr. Green expects to make many improvements.

A photographer from British Columbia was in California recently and while in Los Angeles wanted to tone some prints green. He went into a photographic store there and asked one of the young clerks if he had any green scales (iron ammonium citrate). He said, "No, that he had only Studio, Barre, Automatic and Ingento scales." (Pretty good).

Peter Nygreen of Provo, Utah, has opened a home studio in Santa Barbara.

Chas. A. Brown of Santa Barbara, showed the writer some very fine photographic studies.

Frank Howe of the Pacific Atlantic Photos, Inc., Los Angeles, recently returned

from an extended trip through Imperial Valley and Mexico City.

C. C. Lord of Long Beach, is quite a "golfer." He makes the eighteen in seventy-two.

F. R. Shiffert has moved his studio in Modesto. His new ground floor location is far ahead of the old one.

Sydney Walton of Modesto, is quite a pinochle player—don't ever sit in with him.

Tom Shoob and wife were up from Turlock. Mr. Shoob is opening a ground floor studio and art shop. He came to San Francisco and spent about a week's time purchasing fixtures, etc.

J. B. Monaco has remodeled his San Francisco studio. He also put in a new skylight and some electric apparatus.

Jos. Hubbell, of the International Newsreel Corp., Los Angeles, has just moved into his ten thousand dollar home in Hollywood. He entertained the writer there on a recent trip to the southland. To Mrs. Hubbell is due the wonderful arrangement of everything.

New Local Association

Through the efforts of Mr. P. H. Greene the photographers of Santa Barbara, California, have formed a local organization and held their first meeting in Mr. Greene's Studio.

The Photo Exhibit of the Photographers' Association of California was hung on the walls of the studio and the display was very much enjoyed by all present. The meeting was voted a great success and all are looking forward to the next meeting, which will be held the first week in April, when more photographers are expected to join.

The following photographers were present at the first meeting and are charter members of the new organization. C. A. Hoffman, John C. Barkhart, Peter Nygreen, Ed. Rick, B. B. Ray, Geo. Steegleman, A. Sturtevant and P. H. Greene. Come on boys, let's all go to Portland!

Well Known Firm Reorganizes

It will, undoubtedly, be of interest to the entire photographic trade to learn that a new company under the name of Burke & James Co. has succeeded Burke & James, Inc., the well-known Chicago manufacturers and jobbers of Photographic Materials. Their address is 425 S. Wabash Avenue, Chicago, Illinois.

The new company intends to continue handling practically the same line, specializing on the patented Rexo and Ingento Products and in jobbing the more practical and marketable products of other manufacturers.

Many of the old employees are with the new firm. Included in the above are H. O. Monson, Sales Manager, and Harry Burke, Business Manager.

Merger of Two Old Photographic Supply Houses

The two old and well known photographic firms of Marsh & Co. and G. E. Biddell & Co., San Francisco, have decided to consolidate and will be known as Marsh and Biddell, successors to Marsh & Co. They will continue doing business at the old address, 712 Market Street, San Francisco.

Robert Marsh, or "Bob" Marsh as he is known to his many friends, was with Eastman Kodak Company for many years before starting in business for himself at the present address some sixteen years ago.

George E. Biddell, better known as the Camera Doctor, has been in business in San Francisco for some twenty years.

Both partners have a large following and we and their many friends wish them—Every Success.

Congratulations to the San Francisco Camera Exchange

Owing to the consolidation of the Owl Drug Company and the Sun Drug Company, Mr. H. E. Burns has severed his connections with the latter company. Mr. Burns is now with the San Francisco Camera Exchange, 88 Third Street, and the two popular partners of this photographic supply house, Herbert Luhn and Alice M. Argus, are to be congratulated on having obtained the services of so able a salesman.

Disabled Veterans of the World War

Disabled veterans of the recent World War are warned by General Frank T. Hines, director of the United States Veterans Bureau, to present their claims for compensation immediately, as the time limit will soon expire.

The War Risk Insurance Act specifically states:

"That no compensation shall be payable unless a claim therefor be filed in case of disability within five years after discharge or resignation from the service, or, in case of death during the service, within five years after such death is officially recorded in the department under which he may be serving: PROVIDED, HOWEVER, That where compensation is payable for death or disability occurring after discharge or resignation from the service, claim must be made within five years after such death or the beginning of such disability.

"The time herein provided may be extended by the director not to exceed one year for good cause shown. If at the time that any right accrues to any person under the provisions of this article, such person is a minor, or is of unsound mind or physically unable to make a claim, the time herein provided shall begin to run until such disability ceases."

As most of the men were discharged in 1919, this will be the last year that many of them can legally file claim excepting in extreme cases where the appeal must be sent to Central Office in Washington and the Director allows the additional year.

"I have found that many ex-service men hesitate about filing a claim," said General Hines, "but they should remember that their disabilities grow worse instead of better and too often aid is not asked for until it is too late. The Veterans Bureau is endeavoring to reach all possible claimants before their time limit has expired."

Wollensak Amateur Photographic Competition

The Wollensak Optical Company announces a photographic competition open to all amateurs. There are three classes as follows:—Pictorial, Speed and General. There will be four prizes awarded in each class and in addition, there will be twenty honorable mentions with a prize of a Pocketscope Jr. for each.

Now is the time to get busy, as the entries close May first.

All pictures made with Wollensak lenses are eligible for the above competition.

Frederick and Nelson Photographic Salon 1924

The interest shown this past season in the annual "Salon of Pictorial Photography" held by Frederick and Nelson of Seattle, Washington, has marked this exhibition as one of the outstanding shows of photographic art in America.

The 1923 exhibit, which was the fourth annual show held in the Frederick and Nelson auditorium showed a large increase both in attendance and in number of entries over the previous exhibitions. The total number of entries was 1400, and the list of contestants included professionals and amateurs of high standing in all parts of the country.

Dates for the 1924 "Salon" have been set for October 20 to November 1, and it is expected by those in charge that the number of entries this year will be in excess of any previous registration.

A New Magazine Camera

There will shortly be placed upon the market a camera specially designed for photographing school children, industrial concerns and other large organizations.

Different models of this camera have been in constant use for the past twenty-five years by a firm specializing exclusively in the photographing of school children throughout the United States. So many requests were made for this camera that a company has been formed to put it on the market. Our readers will shortly find in our advertising pages an advertisement from this firm which is the Vicam Photo Appliance Corporation, 1224-26 Belmont Avenue, Philadelphia, Pa.

Spreading Out

The many photographic friends of the H. E. Diggles Music Co., Sacramento, will be glad to know that they have opened a new store in the new Sacramento Public Market Building, 1236 J. Street. Mr. H. B. Meyer, for seven years in charge of the photographic department of Kimball Upson Company, will be manager of the new store. Mr. Meyer's friends wish him all prosperity.

Welcome "Jimmie"

We, of Camera Craft, are always happy to meet our friends and when James E. Reedy—"Jimmie Reedy"—of the Pa-Ko Corporation, Minneapolis, Minnesota, paid us a visit in San Francisco it made us feel happy, all on account of his cheery presence.

We couldn't help contrasting this meeting and our last one with "Jimmie" at the Washington Convention last July. Whow, we still feel hot when we think of the weather! Very little effort is necessary to recall to mind the picture of "Jimmie" tearing up and down the aisles of the convention hall doing one hundred and one things for everybody. He sure was popular!

San Francisco and the Coast looks good to him and we trust and hope that it wont be long until his next visit to San Francisco.

Sales Manager Salmon Visits Coast

W. H. Salmon, sales manager of the Defender Photo Supply Company, Inc., is on a visit to the Coast at present. Both he and Mr. L. Sibernick, their demonstrator for California, called at the offices of Camera Craft. Mr. Salmon is enjoying his trip very much and is enthusiastic about the prospects on the Coast.

We certainly enjoyed his visit and had a great time talking about our experiences at the Washington Convention, etc. The Defender Photo Supply Company, Inc. had a splendid exhibition of their products at the convention. This was well patronized by the visiting photographers and was in personal charge of Mr. Salmon.

We wish Mr. Salmon every success on his trip and hope to see him again—soon.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

Photographic Activities of the Brooklyn Institute

During the month of February there was shown the latest work of Miss Sophie Lauffer at the Brooklyn Institute. Miss Lauffer spent her last summer vacation in the British Isles and the majority of the pictures shown are glimpses about Edinburgh, where she has obtained many of the charming scenes and genre bits of which she is so fond.

Nickolas Muray spoke at the opening night of Miss Lauffer's exhibition. His talk was very informal and after a few kindly comments on the show, he answered many questions as to his own methods and technique. He was followed by Mr. Wm. H. Zerbe, the source of a great deal of the energy and enthusiasm which crops out in the Institute members through attending his classes and demonstrations. Mr. Zerbe's remarks were an informal commentary on his acquaintance with Miss Lauffer and her work.

The classes at the Institute are now making preparations for their annual exhibitions to be held in April. Mr. Zerbe's class had an afternoon session in portraiture on February 10th, and at their last session each member of Miss Lauffer's class made a bromoil print. Mr. Zerbe continued his public Friday demonstrations with two on "The Gum Bichromate Process" and "Oil and Bromoil".

Tour of the Grand Canyon

The California Camera Club, San Francisco, announces its Second Annual Excursion to the Grand Canyon, Colorado Arizona. The excursion leaves San Francisco on Saturday, June 14th, returning June 21st. It is open to the general public. C. A. Love, Chairman, Grand Canyon Committee.

Our Book Shelves

PRACTICAL AMATEUR PHOTOGRAPHY

By William S. Davis

This is a practical treatise on photography and will, undoubtedly, prove of value to amateur photographers. The book contains much information on photographic equipment and its selection. The making of a photograph is dealt with step by step from the exposing of the plate to the mounting of the finished picture, all the practical working details being given. About one-third of the book is devoted to composition and the author's remarks are very much to the point and should certainly prove valuable to the reader.

A very fine feature of the book is the list of reference books given at the end of each chapter. The list should prove acceptable to all who are desirous of seeking further information on the various subjects.

Published by Little, Brown and Company, Boston. Price $2.00 net.

THE SPELL OF PROVENCE

By Andre Hallays

This book of notes and impressions brings to the reader the present appearance and the past story of the most Latin of the provinces of France. It is an interesting story, because it takes the reader away from the beaten track of the sight seeing traveler and unfolds to him glimpses of a new Provence. The book is fully illustrated.

Published by L. C. Page & Company, Inc., Boston, Mass. Price $3.75.

PENROSE'S ANNUAL, 1924

Edited by Wm. Gamble, F.R.P.S., F.O.S.

The twenty-six volume of Penrose's Annual is very beautiful and sets a very high standard in the art of book making. Its many fine illustrations, comprising photogravure plates, pictures in colors, poster designs, etc., show the very latest and finest examples in these particular fields.

The one hundred and thirty-five pages of text matter contains many interesting articles dealing with photo-engraving, commercial illustration, advertising, photography and all the graphic arts. The review of process work by the Editor contains much that is of interest and his remarks regarding the camera and its attendant processes should make the photographer happy.

The annual will undoubtedly prove valuable and of great assistance to all who are interested in photo-engraving and printing. Publishers: Percy Lund Humphries & Co., Ltd., 3 Amen Corner, London, E. C. 4. Price 8 shillings net.

Mail Order Catalogue

We have just received from George Murphy, Inc., 59 East 9th Street, New York City, a copy of their new mail order catalogue. It contains a very complete list of photographic goods and supplies by the leading American and European manufacturers. The system of indexing is very unique and enables the ordinary layman, even if he does not know the commercial name of the article he wants, to readily locate same. There is a charge of twenty-five cents for the catalogue which is refunded with the first order.

The strength of unity is indisputable. Few things do more to retard the natural progress of a business or a movement than a lack of intelligent co-operation.

—Warde's Words.

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Missouri—J. F. Peters, Room 408, Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

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Northern Division, No. 4: Under the direction of Leonard A. Williams, 622 Second Avenue, St. Cloud, Minn. This division comprises Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota .

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3¼x5½ and 5x7 of nude and semi-nude studies and scenery; for nude or semi-nude studies. Class 1.

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Class 3.

5325—W. H. Burwell, 513 Santa Fe Ave., La Junta, Colorado.
2¼x3¼ and post card of mountain scenes, and general subjects; for anything of special interest. Foreign exchanges especially desired. Class 1.

5326—Geo. E. Holland, 142 Vaughan Rd., Toronto, Ont., Canada.
Class 2.

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Class 2.

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Miscellaneous; for anything of general interest. Class 1.

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5x7, 4x5 and post card, D. O. P. of genre, landscape, few nudes of children (no adults) and general; for the same. Class 1.

4456—Harry J. Fromm, 424 First St., Roselle, N. J.
5x7 and smaller general views on D. O. P. only, also child portraiture, views include marines, landscapes, buildings, street scenes, etc. Class 1.

4740—F. R. Seavey, Box 81, Milton, Pa.
3¼x5½ of scenery, historical; for same or anything of general interest. Class 1.

5086—Emmett K. Emslie, 2109 Bagley St., Flint, Mich.
Mostly 3¼x5½ Dev. papers of general views, Michigan, Ohio, Arizona, Kansas, nature, stereos; for good pictures of general interest, nature and stereos. I desire to exchange only good work. Class 1.

5102—W. O. Lott, care of Prov. Auditor, Regina, Canada.
Class 2.

5190—J. Van Winckel, Luikstraat, 98, Lokeren, Belgium.
Any size from 3¼x4¼ to 5x7 of landscapes, architectural and archaeological subjects, portraits, stereoscopes and soft focus studies; for the same. I do not desire to exchange prints smaller than ¼ plate. Correspondence in English, French or German. Class 1.

5286—Irving Schaefer, C. M. Youmans Lumber Co., Darfur, Minn.
Everything acceptable, also desire some prints on water sports, beach scenes, etc. Glad to exchange with foreign countries. Class 1.

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4269—W. A. Gillespie, Box 662, Minden, La.
(Was Stamps, Arkansas)

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(Was Bloom, Colo.)

5061—Carl Kruger, Maple Creek, Sask., Canada.
(Was Big Stick Lake, Sask., Canada)

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A Photographic Monthly

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By SAMUEL ADELSTEIN
San Francisco, California

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A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI MAY, 1924 No. 5

Fishing Boats and Fishermen

By Samuel Adelstein

With Illustrations by the Author

SAMUEL ADELSTEIN

FISHERMEN'S WHARF in San Francisco is not so prolific of good photo studies as in former years when the single sail Italian lateen fishing boats made such picturesque compositions. All of the fishermen (in Monterey, as well as San Francisco) now use gasoline launches. "A Good Haul" shows the modern launch used by them. My prints "The Last of the Lateens" (hung in the Pittsburgh Salon of 1918 under the title of "The Lone Fisherman"), "Waiting for the Turn of the Tide" and "Mending His Nets," exhibited at the California Camera Club in February and March of this year, are pictures of one of the very last of the lateen fishing boats and "Crist," one of the very oldest Italian Fishermen.

Cristofaro (now deceased), who was better known as "Crist", the delight and despair of the artists who formerly frequented Fishermen's Wharf, figures in each one of these prints, but not willingly. He had been sketched and painted so often that during his later years, he would pose for no one, no matter what inducement was offered. For my print "The Last of the Lateens" I literally had to stalk him by hiding behind a packing box at the head of the wharf from two to three hours. As he left his boat and was coming up the landing place, I called out "Hello, Crist!" and snapped him just as he looked up to see who was addressing him. The look of disgust and anger in his face, is plainly evident in the print. In the other two prints containing "Crist" I only secured rear views of him. But in these particular prints, this adds to their value, see "Waiting for the Turn of the Tide."

The Municipal Wharf in Monterey is an ideal location from which to secure fine fishing boat and fishermen pictures. One has but to sit or

A WARRIOR'S END — By SAMUEL ADELSTEIN

wander about the wharf for at nearly all hours of the day one can secure many good compositions, particularly in the early morning during the herring season when the herring fishermen are returning from their night's work and are unloading their catch. Painters from all parts of the country come here for their marines and may daily be seen sketching and painting.

When one knows that Pacific Grove, with its picturesque Monterey Pines and Lighthouse Point and its marvelous wave studies, is but three miles distant in one direction and that Carmel, with the wonderful cypress trees and surf studies of its world renowned seventeen-mile drive and Point Lobos, is but four miles in another direction, one will realize the artistic possibilities of Monterey which I consider the pictorial photographer's paradise.

While some of the Italian fishermen willingly permit one to "shoot" them, others are not at all backward in consigning one to the lower regions if approached on the subject of being photographed. Happily, these grouchy fellows are in the minority. Giovanni, Liugi, Guisseppe, Pietro, etc., are usually more than willing to permit one to "shoot" and particularly if one promises to present him with his picture. In this regard, I never have

GOOD HAUL

Copyrighted
By SAMUEL ADELSTEIN

ailed to keep my word and, as a result, became rather popular with the Monterey fisher-folks—Japanese, as well as Italians, during my visits in ne fall of 1921 and 1922.

An interesting and rather pathetic incident occurred one day when uigi approached me with "Meester, you please take my peetch (picture) like to send to my wife in Eetaly." Luigi was so anxious and self-con- ous and his pose so stiff and constrained, that I gave him up as hopeless. appily, I one day caught him unawares, while he was repairing his landing t and secured a fine composition which I named "A Hole in His Net."

Everyone who visits Monterey should have a fish dinner at genial "Pop" nest's place on the wharf. "Pop" is an institution in Monterey and has te reputation of being the man who first discovered the proper method preparing the toothsome abalone in a digestible manner. My seagull int "Awaiting His Daily Meal" was made from "Pop's" porch. This gull mes there every day to be fed and should any other gull have the temerity t usurp his place or poach on his preserves, this gull drives the intruder a ay. There is also a one-legged gull who frequents a certain fish market o the wharf every day for his meals.

Because of the reflections from its clear, white sanded bottom and the

oil on the surface of the water from the hundreds of fishing boats, and the often rapidly changing clouds and light, the photographic water effects are at times most beautiful and never the same. Monterey Bay—also Carmel Bay, are the marine painters' and photgraphers' delight.

The herring fishermen fish only on dark nights. They leave the wharf about midnight and return in the early hours of the morning. They go out but a short distance in the Bay as the bright shining scales of the tremendous schools of fish are clearly seen against the dark sky of the night. The fishermen do not go out herring fishing shortly before or after the full of the moon, as they are then unable to discern the schools in the bright moonlight.

All of my work is done with a 3¼x4¼ Ensign Reflex Camera equipped with a six-inch focal length f:4.5 Carl Zeiss Tessar lens. The reversible back of my camera has been altered to fit all Graflex attachments. I also have a Graflex cut film magazine which I use with great satisfaction.

All of my marine subjects are made with stop f:16 (I use from f:8 to f:11 for landscapes) at about 1/100 of a second from about 9 a. m. to 3 p. m. in bright weather (somewhat more exposure before and after these hours) and correspondingly more time whenever the light slackens. This time applies to the months of October and November, when nearly all of my marines were "shot."

During the late spring and summer months one may give about ½ this exposure or 1/200 second at f:16 and the varying corresponding exposures as explained above.

All of these exposures apply to cameras equipped with a focal plane shutter. With hand cameras and between lens shutters about double the time of these exposures will be required.

All of my film packs were developed in a Premo Film Pack tank with Premo tank powders, but instead of the prescribed time of twenty minutes at 65 degrees I developed for about sixteen to seventeen minutes. I found that the full time gave too contrasty results for my purpose. I developed in my hotel room every night before retiring and worked somewhat under difficulties, being obliged to cover the transom to keep out the hall light, wash the films in the hotel wash basin, and dry them by pinning to the edges of the bureau and the shelf in the clothes closet. However, the results justified the effort.

I found Eastman cut films (which are exactly the same as par speed professional portrait films) somewhat faster than Premo film packs and that they give soft, beautiful negatives. I prefer them to film pack. However, it is best to be equipped with film packs if one is to be gone for an all-day trip because a Graflex magazine will only hold twelve cut films which cannot be reloaded in the field. Therefore, it is wise to be equipped with a film pack adapter and to take as many film packs as one desires in order to be prepared, should one choose to "shoot" more than twelve "shots" in a day's outing.

ANOTHER GOOD STORY By SAMUEL ADELSTEIN

I develop the cut films in a tank with Eastman tank powders at a temperature of sixty-five degrees for twelve to fifteen minutes according to density of negative required.

One should be careful not to place all of the twelve cut films too close together in the tank and also remember to move the films up and down in the tank a few times about every three minutes or one will be liable to get some unevenly developed and streaky films that will be hopelessly ruined.

All of my projections are made with a 7″ Verito lens on Artura Carbon Black paper, Grade D (White) and Grade E smooth (Buff). I find Grade D is particularly suited to marine studies in bringing out water values. I have tried out many other papers, but am particularly fond of Artura Carbon Black as being the best paper for my purpose. I believe it is wiser to stick to one paper and master its peculiarities and idiosyncracies than to experiment with many different papers. I use a parallex enlarging apparatus equipped with a two hundred watt blue daylight lamp which I find is about seventy-five per cent faster than the regulation Mazda lamp of same wattage. I place but one sheet of ground glass between the light and enlarging camera. I use the regular Artura Carbon Black developer—altered to suit my purpose.

ARTURA CARBON BLACK DEVELOPER

Stock Solution No. 1		Stock Solution No. 2	
Hot Water	20 ozs.	Water	8 ozs.
Elon	30 grs.	Sodium Carbonate	¾ oz.
Sodium Sulphite	1 oz.	To Develop, take No. 1	4 ozs.
Hydrochinon	¼ oz.	Water	6 ozs.
Sodium Carbonate	¾ oz.	No. 2	1 oz.
Potassium Bromide	15 grs.	Sat. Sol. Potassium Bromide	1 drops

In conjunction with this regular formula I make up a specially heated concentrated developer which I believe will be something new and appear rather startling to many workers. I find it a most valuable adjunct to my work, getting results that would be utterly impossible without it. I use it to deepen shadows, bring out figures, bring out details in highlights, tone down objectionable parts of the print and snap up other parts which may have been underprinted. No matter how carefully one may dodge an unevenly lighted negative in printing, one often finds that certain parts of the print will print unevenly. Sometimes in an evenly lighted negative one wants to accentuate or bring out stronger a particular part in the print.

In making up my special concentrated formula, I mix 3 ozs. of a normal No. 2 solution (sodium carbonate) with 1 oz. of the normal No. 1 solution (Elon-Hydrochinon, etc.) The saturated solution of Potassium Bromide and water dilutent are entirely omitted.

To explain to the uninitiated how this heated concentrated solution acts, I will state that omitting the saturated solution of Potassium Bromide which acts as a restrainer in the normal developer, and adding three times the amount of sodium carbonate which acts as the accelerator in the normal developer, leaving out **entirely** the water which acts as a dilutent in the normal developer and heating this concentrated solution to as high as 90 to 110 degrees (away above the normal temperature of 65 to 70 degrees) places in the hands of the intelligent worker, a tool that will simply prove invaluable and indispensable in securing results utterly impossible of former attainment. After one becomes expert in its use, he may figuratively paint lights and shades on his print with this heated concentrated solution.

My method of using this heated concentrated solution is to place a cup containing it in a receptacle of hot water. By continually replenishing the receptacle with hot water, the solution is kept at an even temperature. To use, tip the tray containing the print until the normal developer is out of the way and apply the heated concentrated developer with a wad of absorbent cotton to the part of the print desired. Then flow the normal developer over the entire print. The application of the heated concentrated developer may be repeated several times between flowing over with the normal developer. The concentrated developer should not be applied until after the print has fairly developed.

Unquestionably, any formula for any other paper may be figured out on these lines by the intelligent worker. The important point will be to determine how high a temperature other papers will stand before staining and blistering when used in this manner.

While I do not claim to be the originator of this heated concentrated

WAITING FOR THE
TURN OF THE TIDE

By SAMUEL ADELSTEIN
San Francisco

developer and its method of application, I have never seen, read or heard of it before or since I worked it out.

In closing, I desire to call attention to the value for distance of the as yet little known Carl Zeiss Distar lenses in this country. These inexpensive, easily and quickly applied auxiliary magnifying or telephoto lenses are excellent and invaluable in securing large images of objects at a distance and saves one the trouble of carrying about a battery of lenses of various focal lengths.

By simply placing a 2/IV Distar auxiliary lens over my 6-inch Zeiss Tessar lens and racking out my bellows to 8⅛ inches I have a combined 8⅛-inch focal length lens. This requires double the exposure of the normal lens and magnifies the image 1.38 or a little over one-third.

By placing the Distar auxiliary 3.5/IV lens over my Tessar lens and

racking out my bellows to 11⅝ inches it gives me a combined 11¼-inch focal length lens with an image of 1.92 or almost double the original size. This necessitates giving four times more exposure than the normal, but as most marines and landscapes taken with these auxiliary lenses come under the head of distant subjects, one has ample time to give a snap shot ranging from 1/25 to 1/50 of a second at f:16 (as marked on barrel of lens) with a camera equipped with a focal plane shutter and about double this time with a camera equipped with a between the lens shutter. One may also use a wider aperture and give less time.

As my camera has only a nine-inch bellows I had an extension metal tube made to fit my front board. In using the Distar 3.5/IV lens, I first unscrew my Tessar lens from the front board of my camera, place the Distar auxiliary lens over the Tessar lens, screw the combined lenses to one end of the metal tube and then screw the tube to the front board and that gives me the required bellows length of 11⅝ inches.

The image at about f:11 or f:12 is critically sharp for distance. For portrait or close up work, one can easily work at about f:8 and secure artistic diffusion. For architectural views embracing large angles one should work from f:18 to f:32.

Another advantage of these Distar lenses is the fact that they are so mounted that they will slip over the hood of the front lens mount of the Tessar whilst its own hood has exactly the same outside and inside diameter as that of the Tessar, so that the lens cap, color filters, etc., attach to the combination in the same way as to the Tessar alone. The Distar lenses are also threaded so that one can screw on a lens hood, which I use continually.

There is also a 10-inch Distar 3/IV lens which requires a 10¼-inch extension bellows and which gives a combined 10¼-inch focal length lens and a magnification of 1.70 or 70% larger image. With these Distar lenses (they can be procured for various focal length Carl Zeiss Tessars) one may at small cost convert his lens into a convertible set of lenses. They can be carried in one's vest pocket.

It should be noted that these auxiliary lenses can only be used on cameras where focusing is done on the ground glass as in Graflex, Reflex, Premo Film Pack and Plate Cameras and are not practical on any camera where focussing is done by scale only.

In a future issue of Camera Craft, I will describe a practical method of using the valuable Iodine-Hypo reducer for prints which is so old that it is practically forgotten by many old workers and probably unknown to new workers. Also, a very simple, novel and interesting method of introducing cloud effects, working down high lights and strengthening shadows on the print. This will be of special value to all photographers, particularly the pictorial worker. I will also write an article showing the superiority of the comparatively little known and used Liver of Sulphur (Potassa Sulphurata) Sepia toning method over the widely known and very generally used Ferricyanide—Bromide—Sulphide method.

Charcoal Black

A New and Different Photographic Paper

By Sigismund Blumann, Efficiency Engineer

With Illustrations by the Author

Mr. Dassonville, the artist, is known by whomever loves pictures as the maker of photographic gems, whether potraits or landscapes. To those who are personally acquainted with him he is a charming fellow with rare ideals and enthusiasms, more in the nature of an amateur's love of the doing than the professionals' estimate of profit and gain.

Mr. Dassonville, head of the "Dassonville Photographic Paper Company," if you please: the same individual, same body, same clothes, not the same man. Scientific, delving in paper stock, chemical reactions, thermostatics, profits, markets, demands, and all the details of manufacture and distribution. A very practical fellow with definite ideas. But the ideals impregnate the ideas and after all the spirit that made good pictures actuates the man who is making good paper on which pictures are presently to appear.

I had heard of the Charcoal Black Product: Had seen prints on it: Had wondered about it: So I called on the maker and asked him to talk about it and to tell all which an outsider might be allowed to know. There were no secrets, it appeared.

"It is just a carefully coated Bromide emulsion on a stock milled especially for us. There is a trace of Iodide in the recipe and that is all. But it took me three years to perfect the formulae and the inventions to put out a uniform product."

Hearing Mr. Dassonville tell of the vicissitudes of those three years recalled to my mind the apt phrase, "Romance of Business." Hopes and discouragements, success caught by the tip of the tail and escape with feathers sticking to the fingers, dark days when the right thing would not happen and the wrong would. However, persistence wins. Charcoal Black is here and will continue to be here and everywhere. So, what is it?

Imagine the muchly beloved Platinum Gray deepened and intensified to a rich Platinum Black. Conceive of something richer and blacker than that and you have the color and tone. Now picture a thin sheet of parchment, firm, crackly, translucent and all beautiful on which the picture appears with the matte surface of a plain paper print yet wholly on the surface. Proceed further and accept the maker's assurance of latitude, gradation, ease of manipulation and the possibility of soft or contrasty results by simple exposure and developer manipulation. Do these things in your mind and you shall have partially encompassed Charcoal Black. But not till you

THE URN
(Print on Charcoal Black)
By SIGISMUND BLUMANN
Fruitvale, California

THE MAJESTY OF PROPORTIONS
(Print on Charcoal Black)
By SIGISMUND BLUMANN
Fruitvale, California

have seen the actual prints and worked with it can you form anything like adequate judgment of the product.

The direction sheet gives certain formulae differing from the usual Bromide Paper proportions by a lessening of the Carbonate. No doubt the maker knows best what his product demands, but our own development with the same recipe used for the general run of Bromide papers shows a tone that Mr. Dassonville has accepted as perfect. Using the Wellington formula gave that true black color which characterizes the paper. So, while we recommend following directions, in this as in all cases, we make bold to assert that such solutions as the worker has on hand will serve the purpose if he be reluctant to mix special batches.

The speed of Charcoal Black is faster than Carbon Black (Eastman Artura) and slower than Eastman Bromide. In this particular we wish to state something known to many but which will be considered radical by a large contingent. Speed in sensitized emulsions is not altogether an inherent quantity but may be controlled by relation of development to exposure and by modifications of the developer itself. The essential factors being to govern the exposure by the quality of the negative and to make the developer conform to the exposure. Furthermore, to expose for the particular effect desired. Ample exposure within the latitude of the paper used and dilute developers tending to soft prints with grayish blacks, and short exposures (within the limits mentioned) and concentrated developers giving contrast and vigorous blacks.

These are truths as relative to papers in the aggregate. Charcoal Black is especially amenable to modifications of this sort and especially sensitive to Bromide.

The paper used by the writer was bought in the open market though Mr. Dassonville was kind enough to offer samples for experimental purposes. It was found to be an exquisitely crisp, substantial, though thin stock with a dead, roughish surface and parchment-like texture. No attempt was made to mount it flat though it does not seem impossible. The semblance to tissue seemed to demand tacking by the four corners or at the top, for which purpose only the best photo-paste can be used. A tint in the adhesive would show through. The translucence of the paper is one of its elements of beauty—a beauty that is more than compensation for any additional care required in the handling.

We made contact prints and enlargements on the same lot and as far as tone and manipulation went proceeded similarly with both. The results were quite the same. Which is all we know of Charcoal Black.

Gratitude for something new, something distinctive, something fine is our free gift to Mr. Dassonville, the inventor and manufacturer,—but, ah! we have something still better to offer Dassonville, the artist. We are glad to have Charcoal Black, but we wish and hope we may not lose and have to miss the pictures, to see which we made a weekly pilgrimage to Geary Street, though no business led us there.

Subterranean Photography

By C. J. Hibbard

With Illustrations by the Author

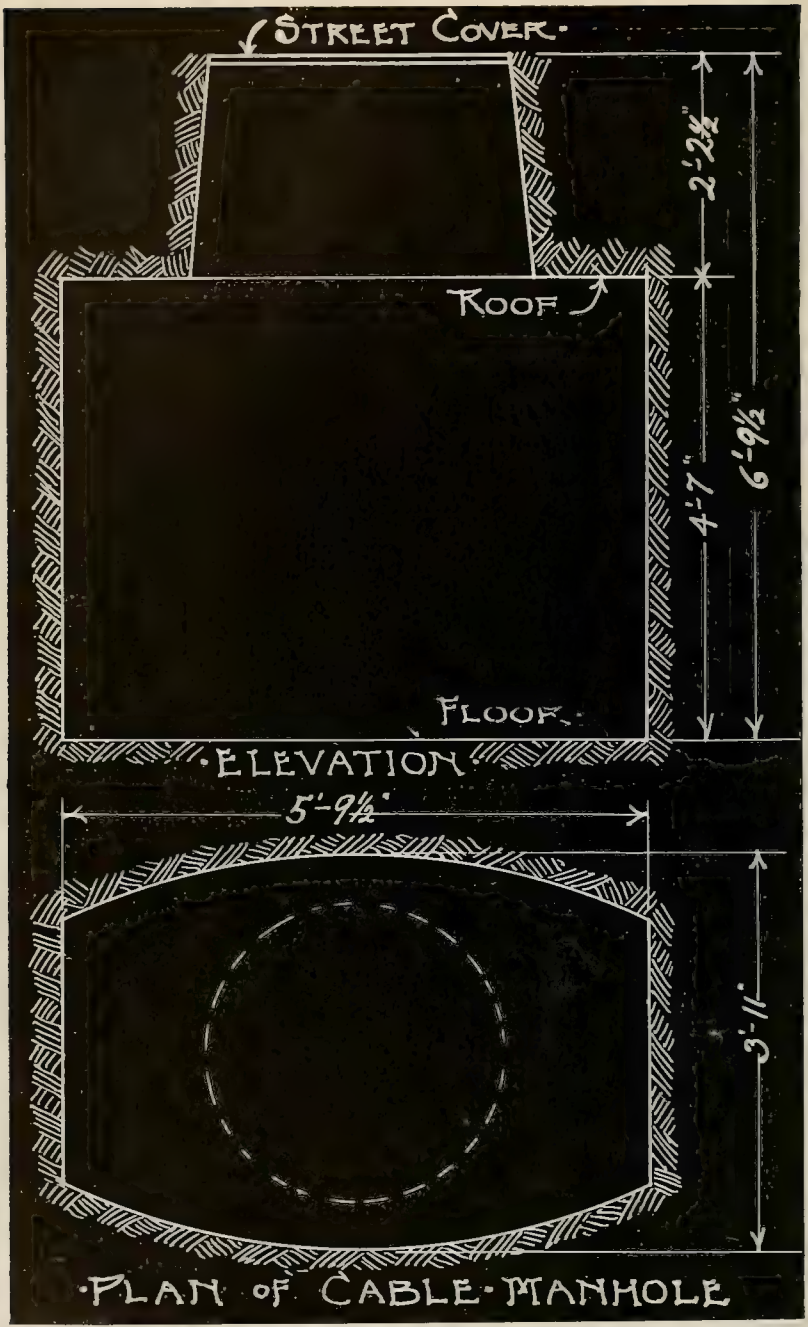
EDITOR'S NOTE: Commercial photographers are often called upon to make photographs under adverse conditions and they are expected to get results. The following story tells how Mr. Hibbard of Minneapolis solved his problems in a very satisfactory manner.

Some time since, on a very cold Sunday (about zero) the writer was asked by the telephone company to make photographs of the interiors of manholes under the public streets.

What form of lighting to use for the work was the problem. After considerable study it was decided to use a storage battery and a head light from an automobile. The quarters to be photographed were very cramped but by using a very wide angle lens on an 8x10 camera good results were secured.

In one of the manholes it was found that there was a leakage of gas of some kind, and in order to get rid of it before the operator dared enter, it was necessary to hang a blanket in the opening so as to create a draft. When the gas had apparently disappeared the operator was able to enter.

SPLICING THE CABLE — By C. J. HIBBARD



By C. J. HIBBARD

Later, in warm weather, the same company wanted a photograph of one of their men splicing a twelve thousand-pair cable in a manhole under one of the most prominent corners in the business district. This, of course, would necessitate the use of a flash to stop motion of the man.

The conditions would not permit of focusing, so the distance from the side of the ledge where the camera could be placed to the splicing was measured. The camera was focused in the studio, a plate holder inserted, slide pulled (as there was no room to pull the slide after the camera was set in place) the field guessed at and the flash made with the cover off the manhole. The result is as shown on the accompanying photograph.

The diagrams give shape and size of the manhole. The part of the face in the left hand side of the picture is the writer's, as it was impossible to keep any further away and still operate the shutter, make the flash, and keep the lamp out of the photograph.

WHAT would I take
For my little ragmuffin?
Who looks so earnestly
Up in my face?
Ragged and dirty,
A bundle of mischief,
Yet nothing on earth
Could quite take his place.
All the fine palaces,
All of life's luxuries,
All the earth's gold,
Heaped up as a toy,
Wouldn't buy from me,
My own precious treasure,
My small, ragged boy.

—R. A. N.

MY LITTLE RAGMUFFIN
By Ednah M. Morrison

The Eleventh Annual Pittsburgh Salon of Pictorial Photography

By Leonard C. Rennie

With Illustrations Specially Selected for Camera Craft by O. C. Reiter

The jury at Pittsburgh has always had but one goal in sight when selecting prints for exhibition in the annual salon which is held in the Carnegie Galleries each year. That has been to admit to the public view only the pictures which are truly representative of the best in pictorial photography.

In the earlier days of the salon there were fewer exhibitions in the country and the quality of a picture was not necessarily as high for it to be admitted to the walls of the show. There were fewer workers, too, and it was but natural that the pictures selected should be more "amateurish" than we now see.

As the years have gone by, the number of camera workers has increased tremendously and with this increase has sprung up a group of men who may be considered as the leaders of the whole crowd of camera artists. They have produced pictures of the finest quality, both technically and pictorially, and they hold in the world of cameras the positions occupied by such men as Sargent and Hassam and others in the world of paint.

The works of these men, then, are taken as the standard of excellence and the jury of today demands that the pictorialist approach very closely this standard before his pictures are accepted. Of course, I do not mean to infer that to be hung in the salon your picture must look like a product of Misonne or Chaffee. What I do mean is that it must be in its own way as nearly as good a **picture,** no matter what the subject or medium, as the works of these recognized leaders.

The quality of pictorial work turned out during the last few years has become much higher, and with this new altitude which has been set, the demands which a jury places on the pictorialist have also become greater. It is not surprising, therefore, that although the record for the number of entries was reached this year, the low record was also reached for the number of acceptances. Out of one thousand one hundred and eight entries only two hundred and seventy-six were accepted for hanging.

This is not any reflection on the work sent in, based on previous years' work, but it bears out what has been said in the foregoing paragraphs. Of course, tastes differ considerably, but I do not believe that anyone, going through the gallery in which the salon was held, could have seriously criticised the selections which were made. Not only were the work technically good, but they were diversified, although, as we remarked last year, there is a sad lack of really good landscape work; in fact, there is a sad lack of any kind of landscape, good or otherwise.

THE DANCE
(Pittsburgh Salon, 1924)
By NICKOLAS MURAY
New York

THE OLD SHIP
(Pittsburgh Salon, 1924)
By ALBERT E. SCHAAF
Cleveland, Ohio

DESIGN JAPANESQUE
(Pittsburgh Salon, 1924)
By CARL N. SANCHEZ, Jr.
New York

Are we unable to produce such pictures, or are we developing our tastes in other directions? Industry, our nation's foundation; the sea, attractive to all people; genre, many of them good, a few very interesting and very beautiful, but as for the landscapes, where are they? America's great painters have in many cases produced landscapes which compare more than favorably with the works of any other nation, but America's photographers most certainly have not done likewise. Have you no interest in the beauties of nature, in the skies, the trees and the hills? The fact that we live in a city is no valid excuse for our lack of landscape photography, although it is a very good reason for the development of a type of picture found in very few countries outside of our own. I refer to the commercial scenes which grace the walls of so many shows. Streets in our commercial centers and tall buildings, modern to the last degree, beautified through the conception of the man who made the picture. Even the lowly and much abused street car has on one or two occasions found its way into pictures which are admired as real art.

That is the spirit of present-day America, but what of the spirit which made it? What of the pioneer spirit which came and found in the hills and forests a beauty which made them remain, in spite of great difficulties, to till the soil and to produce therefrom the greatest nation since the Roman Empire? I am not old-fashioned, but also I do not claim that America has no tradition.

What country, in spite of its greater antiquity of civilization, has any higher heritage than ours? Will it never serve to inspire some of us to achievements in pictorialism which will make our craft remembered and known as it should be? Pictorialists of the West, show to the world the characteristics, the beauty and the expanse of the West as only you who live there and know it can show. Why do not the workers of the East make pictures which carry with them the spirit of the East country. And the South, the land of cotton and yellow pine; does it not number among its workers those who have caught its spirit not only in industry, but in its farms, its cotton fields and its hills?

The landscape which shows but a single tree and a piece of grass will not serve the purpose outlined. The landscapes must be real landscapes great sweeps of country, great mountain passes and peaks, broad expanse of prairie land with its wheat and its corn. England has her workers who produce such pictures in their own land, Central Europe, and the countries of the Scandinavian group, too, all are pictured so that the beholder can feel the spirit of the land as it really is. What of America?

From the walls were selected for Camera Craft six pictures which are fairly representative of a majority of the works on exhibition. The first was Nickolas Muray's "The Dance." It appealed to the writer for a number of reasons, the first and most obvious of which was the naturalness of the posing. Was ever a smile on a woman's face pictured more beautifully? Was ever such a coquettish smile less posed, and did you ever see four more beautiful hands in any picture? Of course the balance is per-

fect, as are all the details of composition in this picture. The original was a chloride print 14x12, and, as the reproduction shows, the technical quality of the print is without any reproach. There were many of the less known workers whom we might have featured here in place of the famous Muray, but to do so would have deprived the readers of the opportunity of seeing one of the most charming pictures in the Pittsburgh show.

"The Old Ship," by Albert E. Schaaf, of Cleveland, is a well executed piece of work in bromoil which is pleasing in every way. It is a thing of contrasts, not in light and shade, but in subject details. The old ship, obviously the product of a century ago, tied to a dock beside which runs a very modern bridge or elevated railroad structure. To the right, contrasting the slow mode of sail transportation, stands a product of the most modern of modern things, the product of the Ford motor works. Perhaps one might say that there is a tendency for the eye to wander aimlessly and restlessly over the entire area of the picture, but, although this is true to a certain extent, it was less obvious in the original print, which was a very fine piece of photographic printing and so handled to carry the atmosphere of age which rightly belongs with the Old Ship.

"Design Japanesque," by Carl N. Sanchez, Jr., is a fine piece of decorative still life. The original print was technically much better than it appears in the halftone reproduction. It is a picture about which little can be said, other than that it is good and very pleasing. It has possibilities as a book plate or it might be made to serve some more commercial purpose. However, it is not necessary that it be put to any of these uses, as it is a picture as it stands.

"Trafalgar Square," a very attractive print by H. Y. Summons, of England, was a picture which was much admired by visitors to the galeries. It was done in a brownish tone, apparently being printed from a paper negative, a method of printing which is finding much favor among amateurs and professionals on account of the fact that by the choice of paper for the negative, and on account of the ease with which it may be etouched, it is possible to get some very pleasing results from the original egative. The atmosphere of the original print was very fine and conveyed to the beholder some idea of the quiet which may reign even in the eart of the greatest city in the world.

"Portrait of Donald A.," by A. P. Wigle, of Detroit, was, without a oubt, the masterpiece among the child portraits. It was wonderfully ell executed, photographically, and the child itself is of an interesting ype. Caught in a very pensive mood, the artist has brought out the haracter which is already apparent in the face, and he has, at the same me, made a picture which is interesting to anyone, whether they know he baby or not. In this aspect it compares with the paintings of old asters, for it will undoubtedly give pleasure to all who behold it. The rint, a brownish chloride, was made on buff stock, and the whole gave to

TRAFALGAR SQUARE, LONDON
(Pittsburgh Salon, 1924)
By H. Y. SUMMONS
Virginia Water, England

PORTRAIT OF DONALD A.
(Pittsburgh Salon, 1924)
By A. P. WIGLE
Detroit, Michigan

MME. LA MERCER
(Pittsburgh Salon, 1924)
By MISS JANE REECE
Dayton, Ohio

the picture an atmosphere which can be appreciated only by the man who actually sees it in the original. No halftone, however good, could do it justice.

"Mme. La Mercer," by Miss Jane Reece, of Dayton, is a strong study that was much admired by the salon visitors. The background is well handled, soft, yet tells its story. The half-drawn curtain on the left balances the mass of sculpture on the right. The placing of the figure is ideal, as it breaks up the lines on the left, pulls the picture together and makes of the whole a strong and pleasing composition.

"Winter Above Timber Line" How the Picture Was Made

By Clark Blickensderfer

When the editor asks you to send a print to be reproduced in his magazine, and in addition wants you to tell the "why" and "how" you came to take the picture, you are fortunate to have him select one with a history. I don't blame him for wanting to know why any photographer would go above timber line in the dead of winter to get this particular picture.

Now for the history: Some years ago while making a trip over the Fall River Road in the Rocky Mountain National Park, Colorado, I had made a successful picture at timber line, and ever since then have had a desire to see that country in winter with its mantle of snow, thinking that under these new conditions one might get another successful picture of the same subject. With this in mind I made a trip to the same place late in October of last year, only to find, as is often the case, that under the new light conditions of a more southern sun, the same subject would not have the proper shadows for a good picture.

However, upon turning around I was impressed by the possibilities in contour and snow conditions of the opposite mountain side when it would be under a favorable afternoon sun.

It was a beautiful warm morning, without a cloud in the sky, and I determined to put in the time until afternoon looking for that most elusive of birds, the white ptarmigan. Wandering through high drifts and over slippery ledges of rock, with twenty pounds of camera and plates upon my back, I kept close watch of the progress of the shadows upon the special mountainside to be photographed, and finally returned to the chosen place, thoroughly convinced that if there were any ptarmigan in this country, they did not want their photographs taken.

It was now 2:30 P. M.—not late enough for good pictorial photography you will say, but up here at this season it is approaching evening, the sun

WINTER ABOVE TIMBER LINE
(Pittsburgh Salon, 1924)
By CLARK BLICKENSDERFER
Denver, Colorado

is but a short distance from the top of the mountain. There is a pleasing design upon the top of the opposite mountain side of reflected sunlight and clear luminous shadows so characteristic of high altitudes. The dark scrub spruce of timber line fame, showing through the snow, makes a good foreground, but one must be quick to pick out the best composition before the sun gets so low, it will shine in the lens. Judging the light from experience, I made an exposure, then looked around for a different composition but before deciding upon one, the sun had touched the top of the mountain and all high lights on the snow were fast disappearing. The journey seemed well worth while, even if one did not find any ptarmigan, as the only exposed plate, when developed, proved to make a negative of excellent qualities.

Data: Taken with a 4 x 5 R. B. Auto Graflex, equipped with a Strauss Pictorial lens of 9-inch focus, on a Seed Non-halation L Ortho plate, exposed 1/10 second at approximately f:6.3, through a Cramer Iso 2 filter. The plate was developed in a tank with adurol, and enlarged through an anastigmat lens on Portrait Bromide D Rough Matte. Some delicate shading was done during enlarging to bring out the right relation of tone in the sky, and distant mountain side, and to strengthen the foreground. Nearly the whole negative is contained in the finished picture, which is not often the case in making a pictorial photograph.

An Analysis of "Winter Above Timber Line"

By P. Douglas Anderson

Although one occasionally gets something worth while with the expenditure of very little effort, generally speaking it is necessary to work hard for results. This is true of making real pictures. It often happens that we tramp over the hills for a day and, due to adverse lighting conditions, do not make an exposure. Again, we may only make a few exposures, and are fortunate indeed if our efforts produce a result equal to the picture "Winter Above Timber Line."

Not only is this a beautiful example of pictorial work, but the print shows clean, careful technical execution. This is as it should be. All defects, such as pinholes and marks of any kind, should be carefully spotted or etched out. A good picture is worthy of being presented right.

The composition of the picture is nearly perfect and speaks for itself, leaving very little for the writer to say regarding it. It is a simple massing of light and shade in the form of an S, and this line carries the eye easily into and through the picture. The more brilliant foreground contrasting with the distance causes the various planes to recede in their proper order, thus giving atmosphere and depth. The use of orthochromatic material gives life and detail to the snow, and makes of the whole a most pleasing and satisfying picture.

A CORNER IN CHINATOWN By P. DOUGLAS ANDERSON

In Mr. Blumann's analysis of "A Corner in Chinatown," last month, he referred pointedly to the figures in the background, yet in the print they did not appear. Our half-tone etcher, not having the advantage of reading the text, softened these figures, with the result shown in our April issue.

The print reproduced this month is an exact duplicate of the print that Mr. Blumann had before him when he wrote his analysis. A study of the two prints will show that the toning down of the two figures improves the print wonderfully and the etcher is to be congratulated on his artistic conception of things photographic.—Editor.

(UPPER)—No. 1.
(LOWER)—No. 2.

By L. U. BOYLE

Illustrative of article on page 238

A Ten Mile Hike and What Came of It

By L. U. Boyle

With Illustrations by the Author

One morning during the month of November, after plans had been made for a ramble along the creek and lakes, snow began falling and continued for several hours. At ten A. M., I decided that the storm was about over and started out, taking my 4 x 5 view camera. In due time I reached the boulevard near the Minnehaha Creek.

The outlook was gloomy, sky dark, no trace of sun. The air was filled with fine particles of snow, and things looked hazy. At this point a large touring car containing four people passed. As it went by, one gentleman (?) remarked, loudly enough for me to hear, "I wonder if that old fool thinks he can make pictures on a day like this." Well, being old and a fool, the remark never touched me, which is one advantage af the passing years.

I soon came to the place where I made picture No. 1; Seed panchromatic plate; K2 filter; stop 16, exposure, three seconds, lens Turner-Reich 7½ inch focus. Picture No. 2 was made on Seed L. Ortho plate, size 3½ by 5 inches, (a 5 x 7 cut in half). As a K2 filter increases the exposure about fifteen times with an L. Ortho plate, I gave this ten seconds. Stop same as No. 1.

Soon after this I met a gentleman with several boys, chatted with him a while, and then moved on. As I was leaving, one of the boys spoke up and said, "Say dad, do you think that man can make pictures on a day like this?" The man replied, "I do not know, but if he can he sure has some camera." This shows what others thought of the day.

Half a mile further down the creek I made study No. 3. This was made on a Cramer Medium Iso Plate, taken from a box given me by a friend. He told me that they were some he had left from a trip which he made sixteen years ago, and as he had no use for them now I might as well have them. Being experimentally inclined, I tried one. The exposure, using the filter, should be about the same as an L. Ortho, so I decided on ten seconds.

Just as I opened the shutter I discovered a car coming fast. It was already close to me and I was in the road. The automobile has the common people divided into two classes; the quick and the dead. Being a member in good standing of the ancient order of QUICK, I closed the shutter and moved, with the result that I had given about four seconds exposure.

I then traveled up the creek towards the lakes, where I made No. 4. This was made on a panchromatic plate, data, same as No. 1. Snow was again falling as I made this exposure. My excuse for making this picture was, that the scene showed considerable distance that was more or less blurred, owing to the weather conditions, and I wished to see what results I would get by using the filter. The foot of the trees in the foreground

(UPPER)—No. 3.
(LOWER)—No. 4.

By L. U. BOYLE

vas twelve or fifteen feet down the bank, and they show no support. lowever, a few bushes on the top of the bank form a support for the tree t right side. In this picture the camera was pointed down about fifteen egrees, with the back set vertical.

The plates were developed with Monomet and Hydrochinon. After eveloping Nos. 1, 2 and 4 I had about five ounces of developer left in the ray, and to this I added five ounces of distilled water. I now placed the nderexposed Iso plate in the developer, rocked the tray for a minute, overed it with another tray and left it. Returning in half an hour.

Picture No. 3 shows the result.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

VOL. XXXI San Francisco, California, May, 1924 No. 5

Our Classified Ad Department

The Classified Ad Department of our magazine is not used by our readers to the extent that it should be; it offers so much and might be made to serve so many useful purposes.

It may be of interest to know that this department is maintained as a service department, strictly for the benefit of Camera Craft readers. There is no profit in it for the publishers—none is desired—as it is conducted on an actual cost basis. Many seem to realize this and avail themselves of what it offers but we feel there are many more who need to have their attention called to the possibilities and advantages presented.

Amateurs, as a rule, commence their yearly photographic activities at this time. Some will find, on looking through their photographic apparatus, items that they have outgrown, and yet which might be specially useful to an amateur not so far advanced. Again, there might be something wanted. An advertisement in this department brings the desired result.

Professional photographers will also find it advantageous to use this department. If they were to take the time to investigate their top shelves they might find something which could be a boon to an amateur or another professional. The financial returns from the sale of such goods will help considerably towards the purchase of that new lens or that extra equipment desired or needed.

Do not procrastinate: Look over your equipment, select what you cannot use and advertise it. In doing this you will not only help yourself but, in all probability, you will help some one else.

The National and Pacific Coast Conventions

The month of August will mark an epoch in the life of every photographer. The National Convention will be held in Milwaukee, Wisconsin, August fourth and eighth, inclusive, and the Pacific Coast Convention will be held in Portland, Oregon, August twenty-fifth to twenty-eighth inclusive.

Photographers should attend one, or both, of these conventions. Begin now to plan towards this end.

The demonstrations, the talks, the exhibits of all the latest apparatus will be valuable in that they will teach you how to do better work, and consequently obtain a better living.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

New members of the P. A. of A. throughout the country may have their individual reasons for joining the National Association, but the short paragraph received from Mr. Geo. E. Lawson, of Bakersfield, California, seems to cover the point quite thoroughly. Mr. Lawson, in sending in his application, adds:

"Have always believed that any man who makes a living in any profession should be willing and eager at any time to help the other fellow so engaged, and the best results in our work can only be attained by unity."

That's the spirit of association work in a nutshell. "Unity" will accomplish benefits for the whole, and such benefits as the individual would never think twice about attempting. Evidently a good many more have been prompted by the same incentive, although they have not taken the time to express it. Still others may have the incentive, but have not acted on it. No time like the present to join the National Association. Avoid the pre-convention rush and gain the additional months' use of credentials.

It may be of interest, especially to the commercial Photographers, to know how the radio transmission of photographs is accomplished by the method invented by Mr. Jenkins, of Washington, D. C. A complete sending and receiving set were in operation at the recent radio show in Washington and consisted, essentially, of the following apparatus:

A projection lantern, working with lantern slide positives, photographs or direct image—two pair of revolving prisms to traverse the projection over the pinhole aperture of a light-sensitive selenium cell and a so-called "chopper" in front of the aperture to break up the varying light intensities into definite impulses. The selenium cell utilizes the varying light impulses to produce varying electrical impulses which are broadcast by an ordinary radio broadcasting set. Mr. Jenkins was operating on 400 meters wave length; any wave length may be used.

Each of the revolving prisms is in reality a warped surface about one inch in width and ten inches in diameter, ground in a plate glass disc. The four are geared together and driven by a synchronous motor of uniform speed, the vertical pair revolving at the same speed but making 200 revolutions to one of the horizontal pair. The prismatic bands intersect in the path of the projected picture just in front of the lantern, the effect of the vertical pair being to give the projection a vertical traverse over the cell aperture, 200 times, while the horizontal pair carry the projection across once.

The "chopper" is merely a metal disc with eighteen holes three-quarters of an inch in diameter, in its outer edge and an equal width of metal between holes. This is revolved at 1800 r.p.m. and so placed a foot or two in front of the cell aperture as to cause 540 interruptions per second of the particular light-ray that strikes the aperture.

On the receiving end the process is just reversed. A standard radio receiving set is used, but in place of the customary loudspeaker a small hydrogen-filled bulb of rather high actinic quality is energized, while its brilliancy fluctuates with the variations of the incoming electrical impulses. This reverts the electrical impulses into light impulses, capable of affecting sensitized plates or papers.

A ray from the bulb is refracted at right angles into a light-proof box, passing through another set of four revolving prisms before it strikes the photographic

plate. These prisms are harmoniously controlled to act in unison with the primary set in traversing the light-ray. The variations in light intensities produce their effect on the plate which is then developed in the usual manner.

A Few Things to Think About

NATIONAL CONVENTION — Milwaukee, Wis., August 4-9. Start now to lay away expenses.

THE PICTURE EXHIBIT—A more commodious display this year. Make up your prints right after the Easter rush.

TRAVELING LOAN EXHIBITS—Greatly in demand just now. Give the secretary ample notice if you wish to avoid disappointments.

WINONA SCHOOL OF PHOTOGRAPHY —July 7-August 2. Filling up fast. Get your $10.00 registration fee in early for a reservation.

P. A. OF A.—We need you; you need us. Have you paid your dues for 1924?

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

Photographers' Association of California. Monthly Dinner and Meeting Held at the Hotel Stewart on Monday, April 14th, 1924.

After the routine business Mr. Lee L. Stopple, Chairman of Committee on Arrangements, made a very interesting report upon the ON TO PORTLAND movement. He reported interviews with steamship presidents, the changing of schedules and many other startling events. He also reported the sending out of the first circular in this connection through the courtesy of Howland & Dewey Company.

Mr. Gabriel Moulin, Chairman of the Educational Committee, distributed the questions upon location and a lively discussion followed.

President Morton then introduced Mr. W. E. Dassonville.

Mr. Dassonville's Talk

The Business of Photography

The great evolution that is going on in photography today is one that I think very few photographers are thoroughly conscious of. The day of twelve photographs as an order has gone by, the day of six photographs is here, the day of three photographs to an order is closely advancing, and it follows that a large percentage of orders will presently be for one photograph. Study your costs carefully and prepare yourselves for diminishing orders

The public are quite aware that the modern portraits are finer today than ever before. They are prepared in many cases to pay as much for six prints as they used to pay for twelve.

The smallest order must show a profi and the photographer should know wha the work really costs. This knowledg would give him the courage to charg more.

In my own studio the average perso for the last two years has been orderin six. Out of every fifty people I photo graph I venture to say that thirty-five o der six prints; a few order one print an a very few order one, two, three or fou dozen. Reorders are, of course, frequen but the person who orders just one pri from me must show me a profit.

Let each one of you imagine that he she is to go into partnership with me; tha each of us is to put up the sum of $2500.(so that our capital is $5000.00.

Let us keep down our cost as far possible in considering how much space w need.

We want an office, nothing very ela orate, so we take a space, say 16x20. W are going to have a dark room in whi we shall do our printing and developin say 12x14. We must have another wor

room for storing our stuff, etc., say 12x14. Then we shall require a dressing room, 6x8. For our studio we shall require a larger room, say 15x22. Now we are going to calculate on the square feet, which is 1034 square feet.

The next point—there are two sides to the next point—is how much can we afford to pay for that studio? That is going to be determined by the volume of business we are expecting to do. The neighborhood must be selected accordingly. Let us assume the rental will be 15 cents a square foot. That equals $155.00 a month. In selecting this neighborhood we are not interested in selling prints at $75.00 to $100.00 per dozen; we are going to supply people who spend at the outside from $25.00 to $30.00. In a studio of this sort the average sale is perhaps less than $20.00. Since we could very easily go out and invest at 6 per cent our $5000.00, we ought to get in from our own business at least 10 per cent. Therefore our capital should give us an income of $500 a year.

We select our space, take a five-year lease, run partitions, decorate, put in electric lights and so invest $1000.00 under the head of permanent equipment. This sum must be accounted for at the end of our five-year lease, and so it represents a depreciation expense of $200.00 a year, or $17.00 a month. Therefore our real rent is $155.00 plus $17.00, or $172.00.

Then we have to get our cameras. We will say we spend for lenses and plate holders and general equipment $1000.00. At the end of our five years it is safe to assume that our $1000.00 is not worth over $500.00; divide that by five and by twelve and we bring it down to $8.50 a month on account of depreciation. Also we have insurance and several miscellaneous charges that are going on all the time and making up the sum total of our minimum overhead per month. We have here $172.00 for rent, $8.50 for depreciation, and a general charge for telephone service, towel service, janitor service, and insurance that will undoubtedly run up to $20 per month; and with electric light replacement and other small items we must consider ourselves very lucky if we get off for that. So that we are traveling right along under a fixed overhead of $200.00 a month. If we each draw out $200 a month that brings the amount up to $400.00 more. So there are $600.00 outgo to that point. On an average, material charges would be fairly high; but material charges fall down in per cent as the selling price of photographs rises. For example, if we make portraits for $100.00 a dozen our material charge may be 10 per cent; but, if we make them at $20 per dozen, it may rise up to 20 per cent. We have assumed that $20.00 is our average income per person. If we figure on $4.00 of this as material that leaves $16.00. We have to take in $600.00; and we have to take in another $8.50 to take care of our interest charge (we have a $600.00 interest charge, or $8.50 per month), which brings it up to, say, $609.00. Divide that by 16 (price less material) and we find that we have to make thirty-eight engagements a month, each one spending $20.00, in order to meet that overhead—thirty-eight people, $16.00 a month.

Now if we have made this analysis first and looked into our neighborhood, we might stop to wonder if we could get thirty-eight engagements a month that would average that; because we would realize that a certain percentage of these would not order. To get those thirty-eight orders we might have to handle forty-five people a month, and we would find ourselves up against a pretty substantial business trying to get a 10 per cent guaranteed payment on that $5000.00. If we know all this and find that $20.00 is not enough, we would put it up to $25.00.

Another point of view is: We found that our rental charge was $172.00 a month, and we have here called it an even 1000 feet, or 17 cents a foot. At 17 cents a foot, the two biggest floor spaces are the studio and office. The big cost of a photographic studio lies not in the workroom as such. It lies in the room where you get that business and that room where the first function of the business is fulfilled, a point that very few photographers understand, where very few know how to put a suitable price on their work. At three prints per person you will realize that the cost of the floor space for dressing room and these other items of interest and ma-

terial—plus some profit—should be covered by a deposit.

We have a fixed rule in my place, and no one ever takes any exception. We mail an engagement card, and we state on the engagement card that a deposit is requested. It is an endeavor to show some profit for my work.

Now, if you are going into a speculative business it is a different matter. But the great business group do not speculate with their businesses. And yet the photographer, if requested, will speculate and may receive no return for his labor.

Does that cover the ground? Can we make a go of it? I was told today—and it amused me very much—by Mr. Magnus: "There is one thing I like about your talk—you know when to quit!" I am through. (Laughter and applause.)

President Morton: Mr. Dassonville has shown very great versatility in the four lectures which he has given to this association, and I thank him very much. Mr. Zinn has asked Mr. Dassonville to attend the convention in Portland and to deliver his talks as part of the convention programme.

P. N. W. Association News

PORTLAND, THE CONVENTION CITY

AUGUST 25TH TO 28TH INCLUSIVE

C. F. RICHARDSON, Secretary, Milwaukie, Oregon

The Photographers on the Pacific Coast west of the Rockies are cordially invited to attend the convention at Portland, Oregon, August 25th, 26th, 27th, and 28th, 1924.

The Pacific Coast Convention

The plans for the successful holding of a Pacific Coast convention in Portland, Oregon, August 25th to 28th inclusive, are going rapidly forward and at this particular time of writing everything points favorably towards the goal of success.

The committee have been fortunate in obtaining the finest place in Portland in which to hold a convention, namely, the Portland Auditorium.

The Auditorium, with its spacious floors, will enable the convention to be staged to the best advantage. In addition to this it is located within five minutes' walking distance of the hotels, which make it ideal for all visitors.

One of the features of the convention will be the exhibition of prints by the members. To hold a successful exhibition of photographs it is necessary to have rules governing the entries, etc., and careful note should be made of the following:

The closing date for receiving prints is August 20th. Further particulars regarding this will be given later.

Not less than three and not more than five prints can be entered by any one photographer or firm.

Prints must be mounted on art cards but not in frames. The names and addresses to be written on the back only and not on face of print, as all pictures will be judged.

All prints to be eligible must be entered by members of either the Pacific Northwest Association or the Photographers' Association of California.

The membership dues of the Pacific Northwest Association are now payable and are as follows:

Active members, $5.00; associate members, $3.00.

The prints from the northern photographers will be judged by three members of the California delegation and the prints from California will be judged by three members of the Pacific Northwest Association.

Many trophies are expected to be received for distribution as prizes for the various classes. Among those already received are two cups presented by CAMERA CRAFT. One cup will be awarded

for the best portrait and the other for the best commercial print. The winners for these cups will be selected by the entire six members of the two selecting committees.

These trophies are very unique and are well worthy of possessing. They are made of sterling silver and the cup design is patterned after the famous California poppy. They will be an ornament that will grace either your studio or your home. If you are married your wife will claim the cup, and it will be displayed in your home, and there will be no argument.

Mr. John Vanderpant, Vice President P. N. W. Association, 557 Columbia street, New Westminster, B. C., will be glad to hear from any dealers who wish to donate prizes to be awarded for the various classes in the print exhibition.

The Convention Committee intend to obtain the services of the best in the photographic profession for the various talks and demonstrations that will be a feature of the convention.

At previous conventions very little attention has been given to commercial talks and demonstrations. This convention will be of equal interest to both commercial and portrait photographers.

Mr. Gabriel Moulin of San Francisco, one of the most prominent commercial photographers on the Pacific Coast, will talk on the "Development of a Commercial Organization." Mr. Moulin has been very active in the San Francisco Commercial Photographers' Association, of which body he is President. He has also been very active in the Photographers' Association of California and is well qualified to handle his subject.

If you have not joined your organization and signified your intentions of attending the convention in Portland, do not delay as delays are dangerous. You owe it to yourself, to your profession, to your organization to become a member. Do not hesitate—join now.

For the Professional

In the Interest of Commercial and Portrait Photographers

NEW YORK PROFESSIONAL PHOTOGRAPHERS' CONVENTION 1924

By R. Kleinberger

How electricity can best be utilized in photography was the keynote of the demonstrations given by New York's foremost photographers at the convention of the Professional Photographers Society of New York held at the Hotel Pennsylvania, New York City, March fourth, fifth and sixth. This was the nineteenth annual convention of the society and one of the most successful it has yet given, being attended by over two hundred members from all parts of the state.

This year's convention was named the Electric Convention", because of the stress laid on the newer uses of electric apparatus in photographical work. It was possible to give the demonstrations because of the co-operation of the electrical companies who lent the necessary equipment for the occasion. In the course of the three days' program there were in all twelve demonstrations given by prominent photographers of this state. Each photographer showed samples of his own work, explaining his method of working in his own studio as he went along.

The program which was presented was an example of the willingness of the big men in a field to show their working methods to those less conspicuous. Among those who demonstrated on this occasion were such men as Pirie MacDonald, Dudley Hoyt, Nickolas Muray, E. E. Mersereau and others of prominence.

In opening the convention John E. Garabrant, retiring president of the organization, spoke on the "Electric Age of Photography," showing what the use of electricity has meant for the photographic

profession. Then came the demonstrations.

The Fashion Camera Studio, noted for producing many of the best fashion photographs of the day, were on hand and took pictures of models in the latest gowns just to show how it is done.

Nickolas Muray, who has taken pictures of most of the prominent dancers and actresses of the day, demonstrated how he posed and took his artistic dance pictures.

Then the audience was given a chance to hear what a woman has been able to do in the field of professional photography. Mrs. Burden Stage of New York City, who is a studio owner and operator, told something of her methods in the handling of her studio. According to Mrs. Stage tact and system in the reception room is of great importance. She believes not only in taking good pictures but also in clever and diplomatic handling of her clients. She showed herself to be quite a psychologist both in this talk and in another which she gave later.

Her second talk was on the last day of the convention after proofs of the pictures taken at the convention sittings had been made. Mrs. Stage then undertook to "sell" these to the persons of whom they had been taken. With a ready line of sales talk she pointed out the excellent features of each picture. With equal ease she seemed to know how to smooth out complaints. In this case unusual ability was required because her "clients" were all professional photographers themselves who well knew from long and sad experience the complaints that dissatisfied customers were apt to make. Mrs. Stage's quick and apt replies brought down a good many laughs from her fellow photographers in the audience .

One of the most interesting demonstrations in the convention from the point of view of lighting was that given by E. E. Mersereau. Mr. Mersereau is another of New York City's best known photographers and two years ago he bought out the long established Sarony Studios. Mr. Mersereau in his method departs from all the current systems of electric lighting. He uses entirely a system of indirect lighting by means of an inverted arc.

This system is more difficult to use than other more popular ones and requires expert manipulation. Mr. Mersereau has devoted much time to the development of this method as the results he obtains show. The indirect lighting seems to produce an illumination somewhat nearer to daylight than any of the other systems. The lines are softer and the final effect is neither harsh nor blurred. In posing his subject Mr. Mersereau pays a great deal of attention to his lighting. He manipulates his screens until he is sure there are no long shadows, nor yet too much light. While watching this artist at work it is easy to see how a wrong estimate of the light and a single false shadow can ruin what would otherwise have been a good picture. If the light is wrong the best pose becomes ineffective.

The finest points in artistic posing were illustrated in a talk called "Watch the Hands," by Dudley Hoyt. Mr. Hoyt is another photographic artist who is able to analyze a pose and find out what the seemingly insignificant feature is that yet can spoil the whole.

Hands, according to Mr. Hoyt, are too much neglected by photographers. The average photographer prefers to go around the hand question rather than face it directly and is too apt to leave the posing of the hands to the discretion of the subject. A great many hand poses allow the thumb and little finger to be unduly conspicuous. In other poses where the two hands are together one gets the effect of too many fingers. Again, the hands are too far away from the subject, making an ugly arm line.

As he talked, Mr. Hoyt, by means of a model, showed the right way and the wrong way to do it. By a slight tucking under of the thumb and little finger the unattractive spread-out effect was removed. Also by gracefully draping malines over the arms of the model the harshness of the arm line was prevented.

Some of the accomplishments of commercial photography were described by Lejaren A. Hiller, who has been called America's foremost illustrator. Mr. Hiller said that there was a great demand for photographic illustrations of the better type.

so much so that he has orders to make over eight hundred illustrations by November. The need for artistic work in this field is so pressing that Mr. Hiller has received as high as three thousand dollars for a picture that cost him only twenty-five dollars to make. Mr. Hiller also believes that color photography is coming into its own and has a great future.

It had been expected that Edward Thayer Monroe would also demonstrate but he failed to materialize. In this emergency Mr. Towles of Washington, without any preparation, made an impromptu demonstration to fill in the gap.

"It is possible for the photographer to simplify working conditions," said Mr. Towles. "But he must know the value of light and shade, color and form. If you know light and its value you can do anything you want. The misuse of lights in photography is deplorable." Mr. Towles is a great believer in simplification. "Every move you make in taking a picture should mean something," he said.

Pirie MacDonald, photographer of men and one of the big names of the Eastern photographic world, was another of the principal demonstrators and this time he actually made negatives, which he has never done at any previous convention. Mr. MacDonald is always anxious to give the other members of his profession the benefits of his own success.

Charles P. Rice of Montreal gave a talk on a too often neglected aspect of photography, the cost problem. He then showed how he had reduced the losses in his own studio by introducing an efficient system of cost accounting as a basis for quoting prices.

At the close of the convention the following officers were elected for the coming year: President, W. E. Burnell, Penn Yan; Vice-President, Sherwood Smith, Walden; Secretary, Seaward Sands, Lockport; Treasurer, Russell McLaren, Buffalo.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

OWN A HAND CAMERA

By Minnie M. Cotton

With Illustrations by the Author

Do you know of anything that gives more real satisfaction than the possession of a hand camera? The little snapshots made with it recall to mind scenes that have been long forgotten. Just the sight of the little prints will make one live again many happy days. I know of no other hobby that takes the place of the camera. It gives pleasure not only to me, but does a great deal for my friends.

How frequently has it been found that the only good picture of a departed relative has been a snapshop.

Nearly all photographers have been called upon to make copies and enlargements of some little print which now means much to the owner.

ALL LOCKED UP
By Minnie M. Cotton

Own a hand camera. It need not be an expensive one. It is better by far to have even the moderate priced box camera than none at all. These little instruments will do surprisingly good work, and are equal

FOLLOW ME HURRY UP SEE?

By MINNIE M. COTTON, Parker, South Dakota

to ordinary needs. Make your exposures in good light, and success will be yours.

Parents are only too glad to have records of their children, real, intimate pictures of them while they are growing. Is it not a fact that the pictures made with our small cameras are cherished out of all proportion to their size? Time enhances their value to us.

Gladys Mae Guernsey was playing with her own chickens in the back yard when I happened along. Gladys was so busy ar intent in her pets that I felt that this w the time above all others to secure son real snapshots of her. I knew that, if t pictures turned out well, her parents wou be delighted to have them. They were.

The reproductions are from the sna shots made that day. They were all ma with a 1A Autographic Kodak, size of pi ture 2½x4¼ inches.

Keep the Lens Clean

If a lens is dirty, 100 per cent service cannot be expected from it.

The writer has often been shown negatives that looked as if they had been made during a fog or through a smoke screen. Questions asked received the answer that lighting conditions were just right when the exposure was made. There was only one thing to do under the circumstances and that was, to ask to see the camera. Our suspicions were correct—the lens was dirty.

There are several ways of cleaning lens. The simplest and easiest way is tip the lens and dust the under side gen with an old linen handkerchief that b been laundered so often that it is soft. there should be any dust on the surface the lens flip it gently with the handkerch to dislodge it. Tipping the lens and cle ing it from the under side, prevents t dust from being rubbed over the surfa of the lens, and possibly scratching it. there should be a slight mist or film on t

lens, breathe on the surface and polish with a rotary motion.

One more point, it is not necessary to polish or rub the lens every time you use it. Very often a gentle flipping with the handkerchief will likely do all that is necessary.

Loading Plates and Cut Films in Holders

A great many amateurs who use plates and cut films invariably dust them with a camel hair brush before loading them in the holders. Doing this is not only a waste of time but also, they do the very thing they are trying to prevent, put dust on the plate with their brush.

Conditions under which plates are made nowadays, insure them reaching the user free from dust and to get best results they should be loaded in the holders as they are. This is also true of cut films.

Soap Bubbles

Many a time when making pictures of children you have wished for something that would keep them playing and yet would not lose its attraction for them too soon. I have been in the same fix many a time. I have hit on many a scheme to amuse them. However, there is one game that they never seem to become tired playing, it is: Blowing soap bubbles with a pipe.

Any one can make soap bubbles, but to make them last long enough for photographic purposes is another problem. The following formula was given by H. A. Lindsay, the representative of Howland & Dewey Company.

Use nine (9) ounces of water and mix in enough castile soap to make good suds, then add one ounce of glycerine. This is especially good.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

PHOTOGRAPHY WITH LENSES OF 2 TO 3 INCHES FOCAL LENGTH

Generally speaking, the use of lenses of 2 or 3 inches focal length in photography, as distinct from cinematography, is limited, in the shorter focus, to the miniature stereo cameras 45 x 107 mm. (1¾ x 4¼ inch) and, in the longer focus, either to stereo cameras 6 x 13 cm. (2⅜ x 5⅛ inch) or to instruments of the popular "vest-pocket" type 4.5 x 6 cm. (1¾ x 2⅜ inch).

It is commonly assumed that such cameras make it superlatively easy to produce a "good" negative. This assumption is accurate if a contact print only is desired; and also if enlargements of the pictorial type are wanted, for here sharpness of definition and photographic quality are of less importance than the worker's artistic feeling, his familiarity with a given method of working and concordance with the particular pictorial fashion of the time. For really critical straight enlargements, however, the negative cannot be technically good enough, and even with the most perfect negative possible some visible sacrifice in definition and quality is inevitable if the magnification exceeds 2 diameters. It is well to remember that a 7 x 5 print from a 45 x 107 mm. stereo plate represents a magnification of 4½ diameters, whereas a 12 x 10 from a quarter-plate means only 3 diameters. Furthermore, the 7 x 5 print will be subjected to the same close scrutiny that a small contact print undergoes, whereas the 12 x 10 enlargement will be looked at from some distance. Statements that such and such a camera will yield negatives producing enlargements "indistinguishable from contact prints" must not be taken to mean literally that contact and enlarged prints carefully made from such negatives will be identical as regards definition and

quality. They simply mean that enlargements of moderate magnification will not display very apparent defects.

If the small negative is to yield a technically perfect enlargement its production calls for special qualities in the camera and special care in working. These points are described below.

Lenses

Obviously, the anastigmat is the only type that fulfils requirements. A first class lens of f/6.3-f/6.8 full aperture cannot be beaten for this work. The larger aperture lenses are magnificent instruments, but if the utmost perfection of image is desired, lenses built with a full aperture of f/6.3-f/6.8 are superior. Curiously enough, it is among extra-large aperture lenses—those of the Petzval and modified Petzval types—that the keenest definition is obtainable, but the sharpness is confined to the axial rays, and for this and other reasons such lenses are out of court in this connection. If the best results are to be had, baby lenses must be most carefully protected from dust and moisture. Constant cleaning is a remedy that cannot be recommended, for it soon destroys the optical perfection of a high-grade instrument.

Focussing

Even a 2-inch lens working at f/6.3-f/6.8 requires a focussing adjustment. A lens of 54-mm. focus (2 1-6 inch), working at f/6.3 and focussed on a point about 14 yards distant, will give a sharpness of 1/500 inch between 6 yards and infinity. Such a negative, magnified 5 diameters, will yield enlargements with a sharpness of 1/100 inch. Now, 1/100 inch is a very poor standard of sharpness for a contact print—and the small enlargement will be scrutinized as if it were a contact print. If a higher standard of definition is wanted in the negative (a good f/6.3 anastigmat can define to a higher degree than 1/1,250 inch over the entire area of its plate) the range of "depth of field" is reduced accordingly. Even with the low standard of 1/500 inch, objects closer than 6 yards will not be sharp. Some small cameras are fitted with supplementary lenses for focussing near objects. These "magnifiers" require to be optically perfect. They add two glass-to-air reflecting surfaces and further impede the weaker marginal rays, thus tending to inequality of illumination. They must be kept scrupulously clean if foggy effects are to be avoided, and they add another little item for the photographer to worry about. The focussing jacket arrangement is satisfactory in practice if made with high precision. I have often wondered why the Cooke lens in its "focussing" form is not fitted to small cameras, but no doubt there is some reason that prevents this simple solution being adopted for V.P. cameras, while the matching of two such lenses for stereo work would presumably be a difficult matter. The exquisite definition given by the lens will be spoiled by the plates (usually of thin glass) being too much bent by too powerful a spring in the slide or in the sheath in a changing box. Some bending is inevitable if the springs act, but it need not be harmful if not present to a great degree. This is another reason against extra large aperture lenses with little depth of focus. Flat film and roll film are less accurate than plates, and, if they are pressed flat against a sheet of glass, a certain amount of diffusion (scatter), which is always present where light passes from one medium into another of less density, is inevitable.

Shutters

With a good f/6 lens and a slow shutter speed the baby camera held in the hand can produce large work possible with a half-plate camera only when the latter is mounted on a stand, because at the same relative aperture (f/number) the baby lens has greater depth of field and is actually faster than its big brother. No fully satisfactory explanation for this enhanced speed has been given hitherto. These advantages will be very largely discounted unless the shutter works smoothly (at least until the lens is again closed, when any jar becomes harmless) and has a very delicate release. This delicacy of release is not, to my knowledge, obtainable in "self-setting" shutters, because the act of depressing the release sets the actuating spring and therefore involves some effort. Another important point is the

correct position of the release lever or button. A range of speeds between ¼ and 1/64 sec. seems all that is required for general work. Higher speeds introduce the danger of under-exposure, especially undesirable in small negatives for enlarging, while "shake" is almost inevitable with a speed slower than ¼ sec. Even at 1/64 sec. it is necessary to guard against "shake." When working at waist-level I can minimize this danger by resting the camera on my walking stick. A tiny hole in the handle of the latter receives a metal pin with a smooth conical head that fits snugly in the tripod bush. This device weighs about 1/6 oz., and is no larger than a ¾-in. piece of lead pencil.

Finders

Where only the centre of the picture is important the eye-level finder is quite suitable, and it is the best for objects in motion. Where both "horizontal" and "vertical" views are to be taken at eye-level, two finders should be fitted and their positions should be such as to make sighting easy. An inconveniently placed finder often spells failure owing to "shake." If the eye-level finder is fitted with a needle-plumb, levelling the camera becomes less a matter of guess-work. For accurately placing the whole image on the plate and keeping vertical lines parallel, an accurately made ground-glass finder cannot be excelled. The moving mirror of a reflex may cause vibration, and the twin lens adds bulk, except in a stereo camera when the finder lens can be placed between the "taking" lenses. In stereo cameras of the small sizes mentioned here this results in the ideal finder, for the lenses are so close together that the image shown in the finder can be relied upon for quite close objects. It may be said here that many find it easier to give slow exposures of ¼ sec. or ⅛ sec. at waist-level than at eye-level.

Plates and Development

Some of the new ultra-rapid emulsions have a very fine grain, but this character is more perfect in plates of the extra-rapid type (about 300 H. & D. or 90 Wynne), while the slow "ordinary" brands of good makes are even better. The photographer can, however, second the efforts of the manufacturer by giving a full exposure and avoiding over-development. Warmish solutions (75 deg. F.) and quick drying also need avoiding, for they mean a more prominent grain. As grain increases with development, there is something to be said for a developer giving a pronounced pyro stain image (**not** stained rebates) because the stain image adds so much opacity and contrast that the metal silver image can be somewhat under-developed. Another advantage of such a solution, of which pyro-metol is an example, is the short "total time of development," and the consequent lessened danger of light-fog. Crystal clear rebates should characterize small negatives.

Enlarging

When enlarging it is best to focus on a sheet of white paper of the same thickness as the bromide paper. A glass front to the easel entails some slight diffusion (see above) and bare paper is best. With the vertical type of enlarger it is a simple matter to hold the paper down flat. Even if the enlarger is of the "self-focussing" model the lens may be fitted in a focussing mount so that the most precise focus can be attained in all cases. Incidentally it may be mentioned that this movement renders the self-focussing enlarger suitable for pictorial "stunt" work.

It will be seen that the production of small negatives yielding enlargements comparable with contact prints calls for extreme care in the selection of suitable apparatus and in its manipulation. This partly explains why technical photographers find large cameras better suited for their work. Where a certain softness of definition and lack of quality are not objected to, the small cameras are far and away the easiest to use, and this explains their extraordinary popularity.

LOUIS NELL.
B. J. of P.

Notes and Comment

Get Together Meeting

The Commercial Photographers' Association of San Francisco held their regular monthly meeting at the St. Germain restaurant on Tuesday, April 8th. They had as their guests the members of the Commercial Photographers' Association of Oakland.

Mr. Gabriel Moulin, President of the local organization, was called out of town on business and Mr. Ralph Young acted as chairman for the evening.

An interesting exhibit of commercial photographs, from the Photographers' Association of America, was displayed on the walls and was much admired by the members. This is the same collection of prints that was displayed at the Washington convention held last July.

On the invitation of the chairman various members recited their experiences since the associations were formed and this proved one of the many hits of the evening.

The meeting was voted a great success and it was very evident, by the attitude of those present, that this is only the first of many such meetings.

Photographic Federation

Mr. William Harding, managing editor of "The Camera," offices 2 Crow street, Dublin, Ireland, delivered an address on the forming of a photographic federation to the members of the Royal Photographic Society, London, on Monday, the 7th of January, 1924.

The forming of a photographic federation is a very novel idea and certainly calls for careful thought and analysis.

The address was followed by a very interesting discussion of the subject by the members.

G. F. CHAPMAN

Vancouver and New Westminster Photographers' Association

The above named association held their annual banquet and dance on Tuesday April 18th. There were fifty-five present. The tables were beautifully decorated and arranged in the form of a horseshoe. Mr. G. F. Chapman, the retiring president was master of ceremonies.

Talks were given by Miss Philips, Mr. Chapman, Mr. Bridgeman, Mr. Dunn, Mr. Stewart, Mr. Vanderpant, Mr. Rowe and Mr. McKenzie.

The following officers for the year were installed: President, Mr. V. V. Vinson; Vice-President, Mr. J. Vanderpant; Secretary-Treasurer, Mr. H. E. Bullen.

Williamette Valley Professional Photographers' Association

The Williamette Valley Professional Photographers' Association met in Salem, Saturday evening, March 15th, at the studio of Mr. Parker. After the business meeting some talks by the members were enjoyed, and a collection of child portraits were viewed.

A feature of the evening was the presentation of a beautiful three-piece candle and vase set in antique silver to Mr. and Mrs. Chester M. Coffey, of McMinnville. Mr. Coffee acted as President of this Association the past year. Miss Kathryn L. Gunnell spoke a few words of appreciation on behalf of the members, after which Mr. Coffee made a speech of acceptance and hearty thanks. Refreshments were then served by the photographers of Salem.

KATHRYN L. GUNNELL,
Publicity Committee.

The Agfa Catalogue

A copy of the catalogue of the Agfa Products, Inc., 114-116 East Thirteenth street, New York, has just reached our desk.

This attractive booklet tells about the many various products manufactured by the company such as chemicals, plates, films, filters, etc., and will undoubtedly prove of interest to photographers.

Several illustrations show results obtained on their plates and films. The reproduction of a landscape from an original photographer in natural colors on their color plate is very good.

A Joyous Event

At Honolulu, T. H., on Thursday, March 13th, Mr. Paul De Gaston, one of San Francisco's leading photographers, was married to Miss Ruby M. Brown. We congratulate the happy couple.

Mr. De Gaston is a very active member of the Photographers' Association of California and has done much for the organization. During 1923 he served as chairman of the committee on ethics and took a great deal of interest in the several other programmes advanced for the betterment of the association.

Harringtons, Limited

We have just received a copy of the 1924 catalogue published by Harringtons, Limited, 386 George street, Sydney, Australia. It is very complete in every detail and should prove of value and assistance to all who are interested in photography.

Mrs. G. G. Williams

It is our sad duty to record the passing of Mrs. G. G. Williams, home portraitist, San Francisco, on March 24th, 1924.

Mrs. Williams was called home very suddenly, surviving but a few short hours after being taken ill. Previous to coming to San Francisco Mrs. Williams was in business in Chicago for several years.

Help to Create the Roosevelt-Sequoia National Park

The Sierra Club, 402 Mills Building, San Francisco, ask that all interested in the Big Outdoors write to their Congressmen and Senators at once urging them to aid in the EXPEDITIOUS passage of the bill (H. R. 4095), now pending before Congress. Also write to: Hon. Nicholas J. Sinnott, Chairman of Public Lands Committee, House of Representatives, Washington, D. C., Hon. John D. Fredericks and Hon. John E. Raker, also House of Representatives (the two latter being California members of the Committee) urging that they have the bill reported favorably at as early a date as possible. Please help to this extent and act now. Every letter counts.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Photo-Engraver

Applications will be rated as received until June 30. The examination is to fill vacancies in the Government Printing Office, at an entrance salary of $1 an hour, plus the increase of $20 a month granted by Congress. Employees receive additional compensation for overtime work, being paid at the rate of time and a half for Sunday work, double time for holiday work, and 20

per cent in addition to the day rate for night work.

Applicants must have completed an apprenticeship of at least four years in the photo-engraving trade, at least one year of which must have been in one of the following special branches: Half-tone or line photographer, stripper and printer, copper etcher, zinc etcher, finisher, router, and prover.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience on a scale of 100, such ratings being based upon the competitors' sworn statements in their applications and upon corroborative evidence.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners at the post office or customhouse in any city.

Our Book Shelves

Wellcome Photographic Exposure Calculator, Handbook and Diary, 1924

All it seems necessary to say regarding this familiar little red annual is, it is now ready! However, a few words about the 1924 number will not be amiss.

There has been considerable revision and many additions to the list of plates and films, both in regard to exposure speed and development speed.

In reference to the calculator we note a simplification of the monthly light tables, which now consist of four columns of light conditions instead of five, each condition demanding double the exposure of that preceding it.

Twenty-four of the memorandum pages are so arranged that the photographer can use them for additional exposure records if necessary.

A complete list of tables for development, with tabloid products, complete the book.

Published by Burroughs, Wellcome & Co., 9 East 41st street, New York.

Number 191 of the Photo Miniature, "Out of Doors With a Hand Camera"

As its name implies, deals with outdoor photography with a hand camera. Its pages contain many valuable and practical pointers about handling the camera and how to treat the various subjects that come within its scope.

There is no reason why fine work cannot be done with the ordinary camera, provided the amateur will handle his camera intelligently and within its limitations. The several worth-while illustrations demonstrate this fact and add interest to the text.

Published by Tenant and Ward, 70 Fifth Avenue, New York. Price 40 cents.

Chemistry of Development

This is the second revised edition of this manual and is a very complete discussion of the subject. Many formulas are given for both tray and tank development. In addition there are pointers on developing troubles and how to remedy them. The manual should prove valuable as a reference book.

Published by J. Will Wishka, 515 5th Street, Effingham, Ill.

PENROSE PROCESS POCKET BOOK AND DIARY, 1924

Compiled by Wm. Gamble, F.R.P.S., F.O.S

This is a small handy pocket diary. It contains a few of the most useful tables and also a list of the various books that are useful to all who are engaged in process work.

Published by A. W. Penrose & Co., Ltd., 109 Farringdon Road, London, E. C. Price 2 shillings net.

BYEPATHS OF COLOUR PHOTOGRAPHY

By O. Reg

The author of this book is a practical photographer who has devoted many years to the study of color photography and has originated many new ideas and ingenious forms of color cameras. His work is based on the subtractive method, which he considers will ultimately prove the most useful and technically perfect one.

The book contains much valuable information regarding experimental work in one-exposure color photography and should prove valuable to all who are interested in this work.

Although the book deals with the various methods of three-color work in vogue up to the present day, nothing is said about such processes as Autochrome, Paget, etc., as these belong to a different category than the methods which the author has sought to expound.

The book is edited by William Gamble, F.O.S., F.R.P.S. Publishers, E. P. Dutton & Company, 681 Fifth Avenue, New York. Price $2.50.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

New Art Association

Mr. Louis Fleckenstein has just organized an Art Association which will cover all the graphic arts, including pictorial photography.

One of the most important objects of the association is to obtain a new municipal art gallery for Long Beach, and when they succeed in doing this they expect to hold an international salon.

The members meet at the Library Art Galleries the third Tuesday of each month.

The following is the list of officers: Louis Fleckenstein, President; T. R. Fleming, First Vice-President; W. R. Barker, Second Vice-President; Alice Maynard Griggs, Recording Secretary; Adelle Phelps, Corresponding Secretary; Edna Hester Badgeley, Treasurer; Mrs. Louis Fleckenstein, Historian and Chairman of the different committees; George D. Bowman, Membership Publicity; Marie Kendal, Art; Florence M. Freeman, Programme; Cornelia Fleming, Entertainment.

FORTHCOMING EXHIBITIONS, 1924

October 17th to November 23rd, 1924—San Francisco International Salon. Last day for receiving prints, September 29th, 1924. Particulars from H. A. Hussey, Secretary, 64 Pine Street, San Francisco, California.

October 4th to November 14th, 1924—The Eighth International Salon of Photography under the auspices of the Camera Pictorialists of Los Angeles. Last day for receiving prints will be announced next month. Particulars from John C. Stick, Director, 811 Washington Building, Los Angeles, California.

Alexander P. Milne

The Officers of the Pittsburgh Salon wish to make public expression of their great loss in the passing of one of their esteemed contributing members, Mr. Alexander P. Milne, of New York City, who passed away March 29th, 1924.

Mr. Milne was one of those quiet, unassuming men—a very conscientious worker in Pictorial Photography. His beautiful and most expressive creations have been admired by thousands of readers of our best magazines who used his illustrations, and in the Pittsburgh Salon—which has had the honor to show his splendid work for several years.

International Photographic Association

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St. Berkeley, Calif.

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Lovic Meredith, Director Stereoscopic Division, Rupperttown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

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Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1754 Laurel St., Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 408, Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

NEW MEMBERS

5329—John K. Packard, P. O. Box 11, Brockton, Mass.
Vest pocket to post card of scenes of U. S., China and P. I. Many pictures of interest; for anything of interest, children and nudes. Class 1.

5330—Dr. W. A. Marcelis, 314 Barrie St., Kingston, Ontario, Canada.
2½x4¼ and 5x7 of all subjects, inside and out; for anything snappy and of educational value. Any good picture acceptable. Class 1.

5331—B. H. Graham, 647 South 52nd St., Philadelphia, Pa.
Class 2.

5332—R. C. Matthews, 715 Buchanan St., Topeka, Kansas.
5x7, 3¼x5½, 2¼x3¼ and 2½x4¼ of landscapes, and points of interest in cities and places of central and extreme west; for landscapes and points of interest as above, Colorado Grand Canyon, California, Washington, Oregon, Salt Lake, etc. Class 1.

5333—L. E. Edmondson, Obadest Ave., Mobile, Ala.
5x7 and smaller of landscapes; for the same. Class 1.

5334—Mrs. John L. West, P. O. Box 435, Richland Center, Wis.
3¼x5½ and smaller of landscapes, natural scenery Wisconsin River, etc.; for landscapes, river scenery, water falls, canyons, or anything of interest. Class 1.

5335—L. E. McLander, 908 Vine St., La Crosse, Wis.
Class 3.

5336—I. L. Mellott, P. O. Box 340, Atkinson, Ill.
Views of Midwest scenery, beach scenery, bathing beauties, etc.; for bathing beauties and studies and interesting scenery. Class 1.

5337—C. F. Otis, 638 S. 11th St., Marshfield, Ore.
4x5 contact and 8x10 enlargements of landscapes, lakes, rivers, forests, seascapes and shipwrecks; for mountain scenery, views from national parks. Class 1.

5338—Lewis D. Capen, Millbrook, Mich.
Class 3.

5339—Andreas J. Andresen, 4059a McRee Ave., St. Louis, Mo.
5x7 and 8x10 enlargements of 4x5 of news and fire fighting, parades, fire apparatuses, wrecks, buildings; for anything of interest, female studies, draped and nude, fire fighting and apparatus, wrecks. Class 1.

5340—Ralph D. Hartman, 1106 E. 111th St., Cleveland, Ohio.
4x5 or less of scenes, clouds in landscapes, portraits, child studies; for the same of figure studies. Class 1.

5341—W. H. Hawley, Vernon, Texas.
Class 2.

5342—Ray E. Gates, Jr., Box 884, Union City, Pa.
2¼x3¼ up to and including 8x10 of pictures of general interest, wrecks and scenery (scenery hand tinted); for the same and figure studies. Class 1.

RENEWALS

1714—H. A. Nerison, Westby, Wis.
Class 2.

2095—G. G. Stortz, 2611 N. 8th St., Philadelphia, Pa.
3¼x5½ of landscapes and historical buildings and places; for all kinds of views from all parts of the country, or anything of general interest, except portraits. Class 1.

3255—Dr. A. M. Sutton, 311 Walnut St., Pacific Grove, Calif.
3¼x4¼ of Marine and fresh water animal and plant life, insects, etc., 10 to 450 diameters; for the same. I desire to exchange only fotomicrographs. Class 1.

3792—Fritz Stein, Danzig-Neufahrvasser, Free State of Danzig.
Desire to exchange child photos, especially figure studies, quarter plate, half plate and less; good work given and required. Class 1.

4632—J. H. Hans, 629 Woodland Ave., Kansas City, Mo.
Nudes; for the same. Class 1.

5189—George Francis Hogan, 220 West 69th St., New York, N. Y.
3¼x4¼, 9x12 cm., 4x5 of Marine, Naval, sea and landscapes, news events, architectural, monumental; for the same and same sizes. Class 1.

5255—O. K. Wiandt, 732½ E. Main St., Danville, Ill.
3¼x5½ and smaller, landscapes, clouds and miscellaneous; for anything of general interest. Foreign correspondence in English invited. Class 1.

5262—James Gillidett, Plains, Kansas.
Class 2.

5319—B. Sargeant, 885 Sausalito Blvd., Sausalito, Calif.
Class 3.

5183—Homer D. Cornelius, 410 So. Ashland Blvd., Chicago, Ill.
2¼x3¼ and 2½x4¼ glossy finish of Yellowstone Park, Yosemite Park and subjects of general interest throughout the Western states; for historical or any interesting subjects within the U. S. Class 1.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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Photographing Alcoholic Specimens*

By J. G. Pratt

With Illustrations by the Author

The scientist, especially in the medical fraternity, often finds it necessary to secure a photograph of some specimen which has been preserved in alcohol, and should the commercial photographer be called on for this work, it is probable that he would straightway encounter considerable difficulty.

Such specimen cannot be photographed in the glass container on account of distortion through refraction of the light rays, and furthermore, the preservative fluid is generally more or less discolored. Also, as this class of work generally involves the use of ray screens in order to differentiate the various colors or markings of the specimen, somewhat lengthy exposures are required, and, all in all, it is probable that considerable time will be consumed in taking the photograph. If taken out of the alcohol, therefore, it would be more than likely to lose its shape or color in the process of drying, and even where the exposure is cut down to a few seconds, there is often sufficient shrinkage to show movement in the photograph.

If the photograph can be taken without any of the above difficulties, and this is sometimes possible, according to the nature of the specimen, it is far easier to do so, but if not, we must resort to some method of photographing the object in a transparent liquid. Glass cells are made for this purpose by the various optical companies, but one would practically have to purchase a cell for the special requirements of each specimen, and these cells are difficult to get and are quite expensive.

One of the requirements in photographing through a liquid is that the object must be as near the top or cover-glass as possible so that refraction through the liquid will be reduced to a minimum, and the difficulty encountered with cells which one can purchase is that they cannot be secured with exactly the proper depth to accommodate the object. In each case, therefore, some form of base or support must be devised for elevating the specimen until it touches the cover-glass. This is desirable also as it must be held firmly in place since there is a natural circular

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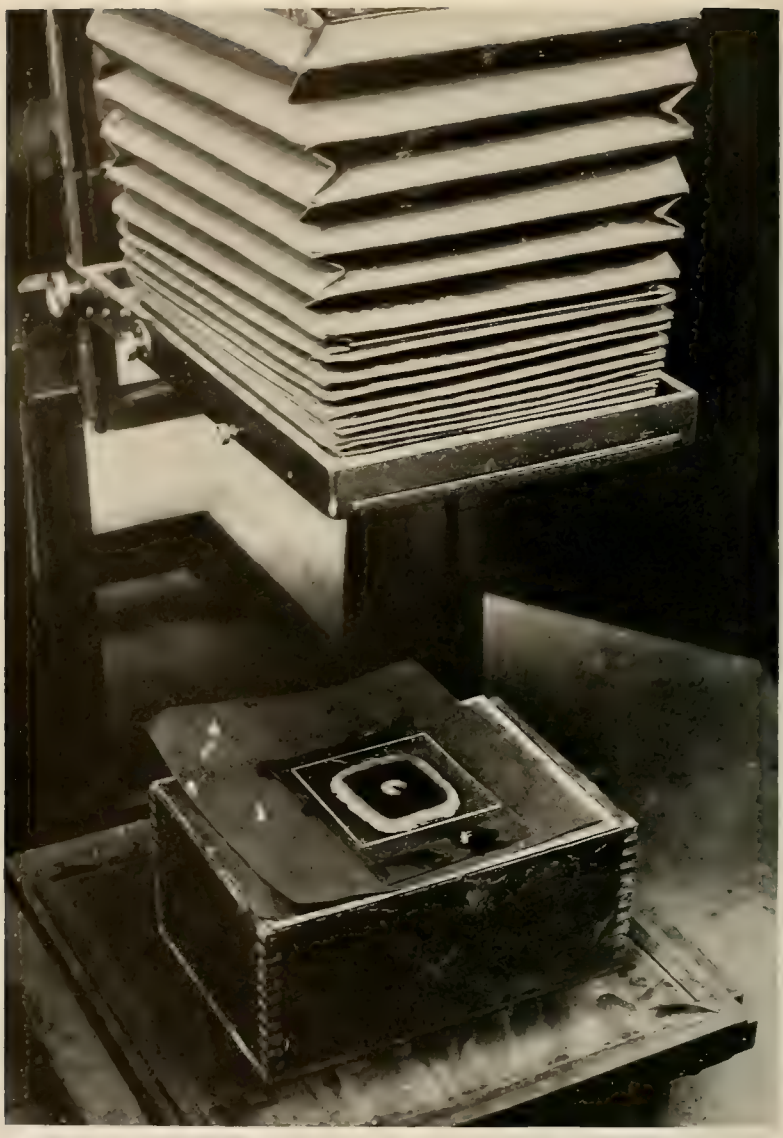

By J. G. PRATT

movement to any liquid, and unless attached, the specimen is apt to move during the exposure.

To obviate all these difficulties the writer has devised a simple plan by which a cell can be made in a few minutes, to meet the exact needs of the specimen in hand, and the only requirements are a sheet of optically corrected glass and a few ounces of modeling-clay or plasticine. A five-inch square of such glass was obtained from Bausch & Lomb for five dollars, and so far this has been ample in size for all the specimens so far encountered. Alcoholic specimens for the most part are of small magnitude, so that no great outlay of cash should be required in this respect.

LACHNOSTERNA By J. G. PRATT

The procedure is as follows: Roll out a piece of modeling clay (the kind which is mixed with oil) until the roll is of a diameter just a little more than the thickness of the specimen to be photographed, and the length should be sufficient so that when the ends are brought together in the form of a circle or square, the interior field will be large enuogh to accommodate the specimen and allow sufficient space all around for an appropriate background.

This should be pressed down on a piece of clear glass until perfect contact is made. In doing this it is best to place a sheet of paper over the clay, and press it down with another piece of glass or other flat surface. This flattens out the top and the paper prevents the clay from sticking to the upper surface when it is removed. It is also advisable to pinch down the outside of the clay somewhat in order to insure good contact with the glass all around.

Now fill the cell with boiled water, which is free from bubbles, and when the specimen has been placed in its proper position, gently press the cover-glass down until it touches the specimen, and at the same time squeezes out all bubbles and forms a perfectly water-tight compartment. This cell will remain intact for a half hour or more, which gives ample time for taking the photograph.

It is best to use the camera vertically in order to avoid tilting the improvised cell, since the cover-glass is held in place merely by suction and

the stickiness of the clay. Any background can be used as deemed most appropriate, although the writer finds that alcoholic specimens often show up to best advantage when given a black ground, as in the case of the illustration herewith, a somewhat enlarged view of one of the white grubs (**Lachnosterna** sp.), which does so much damage to the roots of vegetable crops. The body of this insect is yellowish, while the head is dark brown, although this was readily brought out by using a panchromatic plate and a K-2 color screen. The specimen is seen in the water cell, placed over the black hole of the "dark-box," illustrated with other backgrounds in Camera Craft for January, 1923.

Child Photography

By John Wooster

With Illustrations by the Author

This little article is not one that presumes to teach the professional, or does it intend to tell how you may become a child expert. It simply outlines the methods that I have gathered in many years of practice.

Childhood, the sweetest time of life, is also the fleetest. The baby of today is the child of tomorrow. The child today is the man of tomorrow. Therefore, unless we record the baby smile, the boyish face, or the childish laugh today, tomorrow it will be lost in the past.

There are two classes of subjects, i. e., children that we may pose and those that pose themselves.

Some children, like some men, go through life with a certain indifference to anything; these may be photographed with little preparation. Others are of a quick grasping mind and they think logically for themselves. Bruskness may secure obedience but not a picture of them. They do not know what a camera is, what it does, why we look in the back, and not knowing are consumed with a restless desire to understand the strange something at which they are told to smile. Yet if we will take the time to explain to them what each little part of the camera is, what it does, and why; frame our answers in words they can understand, they will fall in with our desires and as the result of a little patience, many beautiful pictures will be obtained.

The "plain kid" type, or the natural child, may often be posed and will fit in with our plans well enough to make interesting "shots."

The self-conscious child, or bashful child, is struck with a true stage fright and is the most difficult of the problems offered to the operator. With this type I have found success by making a dummy exposure, then, when the tension is gone and the child relaxed, make the real one.

Backgrounds are a matter of choice; avoid too much or too glaring settings. The back yard—the hills—the lawn and shrub—the front door—or indoors in a well lighted room; all of these make pleasant surroundings.

THE AGE OF INNOCENCE
By JOHN WOOSTER
Greenbrae, California

Avoid too much sunlight or the face will have a contrasty appearance that is not to be desired. This may be caused by excess of sunlight on the whole, when one side has great contrast and the other side of the face is shadowy. This effect of too much light on one side and too little on the other may be overcome by changing the position of the model or by using a white surface or a newspaper to reflect more light on the dark side of the face.

"The sun behind your camera assures success" is the motto of one of our amateur finishing plants, but unless we use that sun correctly we cannot expect the best results. That is, we may get a photograph in that manner, but not always a picture.

Talk to the child while you are working and you will do much to ease the natural tension of the situation.

The exposure will naturally depend on light conditions, but if we avoid the strong sunlight and stop the lens down a little we may use 1/25 of a second as the safest exposure. Little wash suits and overalls photograph better as a general rule than the more elaborate Sunday clothes.

I develop my exposures in the Eastman plate tank for three-quarters of the normal time, at which period I remove the plates, place them in water, and with a fine brush soften the high lights or strengthen the shadows. I then return the plates to the tank and complete development and fix, wash and dry them in usual manner.

I seldom make contact prints with the exception of a proof print. If the work looks promising I make an enlargement, size usually 8x10 inches, on Carbon Black, grade D, a paper that I find well adapted to child studies. I find that the plain "Nepera" with potassium bromide added in small amounts, will give excellent results.

The illustration, "The Age of Innocence," was made with a 4x5 Korona View Camera, fitted with an R. R. lens. The exposure was 1/25 second at f:16 in medium sunlight at 4:30 P. M. The Agfa extra-rapid plate was tank developed in metol and enlarged through a Goertz Dogmar lens on Carbon Black paper, grade D.

The second illustration, "The Curb Artist," was made on a day when the sun was shining through light clouds. The same camera and equipment was used. The exposure was a 1/2 second at f:32. The plate was developed and enlarged as in other illustration.

If you will be sincere and patient you will be able to record a few shots of the baby that you will be proud of in the future.

The life of duty not the life of mere ease or mere pleasure: that is the kind of life which makes the great man as it makes the great nation

—Theodore Roosevelt.

THE CURB ARTIST
By JOHN WOOSTER
Greenbrae, California

The Bumpy Road of a Press Photographer

By F. L. L. Scharlach

With Illustrations by the Author

Gall? Sure I've got gall! I wouldn't have remained on a large city newspaper long enough to even see the inside of a news-photographer's dark-room, if I didn't have something!

The mere fact that I'm trying to "bust" into print ought to be proof of my nerve; and it's all your fault, you chaps who study pictorial photography, composition and the rest of the frills, then fix up exhibition-mount-style prints just to make the news-photographer think he's a bit untidy.

Did you ever sweat blood to get a picture? Well, I've sweat something, and, as I lost weight immediately afterwards, it must have been blood. Now, there's the Ford-Chaplin picture shown in the first illustration—I took that picture with Graflex speeds set for out-door exposure, because I came upon the quarry unexpectedly. I was afraid I'd lose the chance of taking Henry, Edsel and Charlie together. As it was, the exposure was made in the engine-room in 1/50th of a second at f:5.6 at 3:00 p. m. on a bright day in October.

The print-retoucher will tell you that the sleeve of Henry Ford's coat didn't look good. No, it didn't—the negative (the most valuable one) was damaged in the hypo-box. In such a case, the news-photographer merely opaques the thing rather heavily, so that the artists (they always have these fellows hanging around a large daily) might finish out the damaged sleeve with greater ease. A number of publications bought this print of me, and you will not be able to notice anything wrong with the sleeve, if the artists are "on the job." Let me whisper something in your ear: I took this picture on a 4 x 5 plate (the size mostly used in press-photography), and enlarged it to about 8 x 10, because the artist does not have to be so careful. He not only can be less painstaking, but any chance rough work is "killed" in reduction when rephotographed by the engraver using a sixty-line screen.

When our town, the city of Detroit, got a new mayor, I went down to the City Hall to photograph him being sworn into office. Mayor Frank E. Doremus is shown at the left, in the second illustration, and Judge Charles L. Bartlett is at the right. This exposure was made by the use of a couple of 25-Amp. lights placed by a "movie" photographer—not quite strong enough in this case where I had to "stop motion"—wide open, at f:4.5; and, though the negative was thin, it was purchased from me as best picture taken by the "still photographers". Mayor Doremus is news to-day; because he is recuperating in a north woods, after a long siege of sickness, chopping wood, etc. Judge Charles L. Bartlett is always news, because he sends wealthy automobile speeders to prison!

(UPPER)—EDSEL, CHARLIE AND HENRY
(LOWER)—MAYOR DOREMUS AND JUDGE BARTLETT

By F. L. L. SCHARLACH
Detroit, Michigan

One day last August I had an assignment to photograph the General Motors Building, which occupies a position at the geographical center of Detroit. Now, this fifteen story office building, which stands on an entire city block, had always been taken from a height. I went up to the boulevard and set up a 5 x 7 view camera equipped with a Series V Protar lens, and "stopped down" to f:45 and, though the automobile traffic filled the boulevard from curb to curb, I made the picture. Although the ex-

ONE OF THE PLEASURES
OF THE PEDESTRIAN

By F. L. L. SCHARLACH
Detroit, Michigan

posure was made on a cloudless day, the final print that was reproduced in the newspaper contained clouds. The data telling how they were added to the picture is as follows: One of those artists just cut the building out, and pasted it down on a good cloud print which I took with the lighting from the same direction, mounted the whole arrangement on white bristol-board, and I rephotographed it. I got credit for being an unusually good photographer!

A lady came into the press-studio one afternoon—wanted to be photographed for advertising purposes. My subject had to "sit" in the hallway,—my studio. I took her with the lighting "as was"—ordinary daylight, no screens or reflectors. I had learned this trick while with Clarence H. White of New York. The artists fixed this picture up, and I believe that it was used for calendar work.

Newspaper photographers rail at the reporters, get railed at by the

SKETCH OF THE AUTHOR By F. S. NIXON

artists, and the engravers howl about the "bum" copy turned in by the artists. The artists on The Detroit Free Press loved me. In substantiation of this claim I refer you to the third illustration: F. S. Nixon, a "good friend of mine," and an artist on the "Press" made this drawing of me. You'll note that my head's pointed for news—and my nose belongs to the business class. No, I don't belong to the race you have in mind; I eat kraut, pigs knuckles and pork-chops!

Did you ever stop to think of just what is considered news? Look at the fourth illustration. I don't remember the bare-headed chap's name, and I am not taking the time to look it up; but he's a resident of San Francisco, said he was an author, was walking around the rim of the United States to prove the hospitality of the people, without asking any

BELLE ISLE By F. L. L. SCHARLACH

favor except a drink of water. He said that City Firemen usually entertain him. He expects to win $60,000, if he succeeds!

You'd hardly think that common views, shown in the fifth illustration, would be considered news pictures; but the people of Detroit love Belle Isle, their summer and winter play-ground. These two pictures show winter scenes on Belle Isle; and the "lay-out" was well executed for rotogravure.

The object of this article has been to show the possibilities of press-photography from a remunerative point of view. None of these prints would win a prize, if entered in any photographic contest. All of them, however, have made money for the writer, because they were wanted for purposes of illustration at a certain time.

The press-photographer does become careless in printing. He relies on the artists, because he himself cannot take the time to finish his print. Then, too, he prints from wet negatives, and hands the artist a wet print. Any photograph is termed "art" in newspaper parlance; and those who have to do with any phase of reproduction come to look with unfriendly eyes at some really artistic pictures—they must be rephotographed and printed on glossy paper. Strong blacks and whites with plenty of detail are wanted.

Life is hard! I watched a chicken (a real chicken) last week, that had been thrown into a yard among strangers of its kind. It got pecked until its life was made miserable. If it had but had the gall to peck back, it would have had less trouble. If you don't like this article, please tell the editor so—tell him what kind of an article you do like, and I'll try to "peck back" with that kind of a story.

Photography of Men

By J. E. Mock, Rochester, New York

Address and Demonstration given at the 1923 P. A. of A. Convention

Mr. President, Fellow Craftsmen, Ladies and Gentlemen: Mr. Stearns introduced me as one who is going to specialize in men's portraits. That is a mistake. The city I am in, although first-class, is not a large enough field to specialize in men's portraits only. Now, it is not an easy matter to come before you and say "I am going to demonstrate how to make portraits of men." That would be a misstatement. What I want to show you is how to make portraits of men that have the force and the power, and carrying qualities incidental to your daily business, bearing in mind that we must get an expression in the man's face that will please the man's family. A portrait that will convey the character of the man to the person to whom it goes—perhaps to an employer, if he seeks a position; a portrait that will carry the message intended.

I recall one time asking a man how many kinds of fish there were. "Well," he replied, "I don't know; probably millions of different kinds of fish." I said, "No, there are only three kinds—small, medium and large ones." There were the three kinds and it covered the situation. The same is true of men.

Men are queer. We photographers are queer. It is very much like the old Quaker, who said to his wife, "All the world is queer, except thee and me; sometimes even thou art queer"—so that leaves only me. Well, maybe some men are a bit queer. The main thing is in knowing how to handle them.

Making portraits of men is not merely knowing how to light the subjects, nor how to press the bulb, neither how to place the background, nor how to get a nicely modeled face. You all know how to do those things as well as I do. I am positively sure that some of you know it better than I do, and I am almost sure that the rest know it pretty nearly as well as I do. So that is a technical point which does not enter quite into the subject of my demonstration.

As I said before to you, a man's portrait must have pluck or force, and power to drive his characteristics into the other fellow's mind. As I looked around the hall I saw the different portraits of men in the exhibition, beautifully modeled, some of them against light grounds, some of them against dark grounds. Nevertheless, in many cases, no matter how well some of those portraits are executed, there is something lacking that does not go home, something that does not reach the spot.

Now, remember, there are all kinds of men. There are all kinds of characters. There is the wealthy man, for instance, who enters your

studio; to approach this type of man is not easy. He has an appointment with you, but you being somewhat of a bashful nature, as artists generally are, feel as though you were going to meet a man far superior to yourself. Never let such a thought enter your head. As a man you shouldn't have any superior. You should feel as important as anyone else, rich or poor. You have no business to cow down for anyone. There isn't anybody better than you.

In other words, you should have confidence in yourself and know that you know your business. Your patron may be a professor, banker or physician; you know your business as well as he knows his, and he comes to you because you know your business. So don't cow down! When you have mastered that one thing you have taken a long step toward rendering good portraits of men. Self-control and courage is essential in being master of any situation.

When first you glance at a man you can tell pretty nearly what he is made of, generally, as his character is engraved in his face. It takes many a year to carve those lines, and those descriptive lines in the forehead particularly. And if there are a few lines here (indicating the corners of the mouth) do not forget that fellow is always good natured, laughing with the world. He is always in good humor.

When a man enters your studio and says "Good morning," and you answer "Good morning," you have not yet gotten anywhere. If he looks around a little while and doesn't seem to notice you, does not want to open up, say, "It's a fine day." Now the very tone of your voice is the keynote to his answer. A real man doesn't like a lackey; he wants to meet a real man every time. He does not want to be treated with over-politeness. I myself abhor it. When a man addresses me with "Sir" every time I talk to him, he reminds me of an ordinary waiter in a hotel. You are above that, gentlemen. You are professional photographers. Your profession calls for a certain dignity, and you are the one who can furnish it in your studio, and if all of you would hold that attitude, the public at large would think more of the profession.

Now, you will say there are only a few who have the courage to do such things. No, there are **not** only a few; there are many who know how to use tact in approaching men. Courage and tact it must be.

There is another class of men called the cultured class. Now, I do not mean to say that the rich man is not cultured. There are all kinds of rich men, business men, philanthropists, professional men, etc. These men as a rule comprehend the business side of your time, and realize that you are not in business for pleasure. Do not try to show and tell a man that you you are not making any profit on your work, because your customer knows very well you have to pay the overhead expenses and have to live. Do not talk price in a definite way before you make the sitting; one or two questions along that line will be sufficient to find a cue as to what he will spend.

You realize very quickly what kind of a picture he wants. Now suppose

he says, "Well, my wife says I have got to have a picture taken." You know what to do; don't make a small size, only, even if he says so, but put in an 8x10 plate. You might use 5x7 plates, but by all means put in an 8x10 also; make a good one, a large head, and if that isn't quite as good as the small ones, sell him the large one anyhow.

Now, the customer may say, "I want a picture for publication." Gentlemen, when it comes to a portrait for publication, it must be an absolutely good likeness, first of all, with force and expression. His personality must be well represented in his portrait; it must have carrying power.

Now, do not forget that, that portrait requires just as much attention and probably harder thinking on your part than the one that you are making for his family. You are putting yourself before the public also, because your name may possibly appear on the photograph. I will say to you, don't slight any photograph that is made for publication only, even if you only sell one print. Do not slight it, and think anything will do for a reproduction print.

If you will look through the newspapers and observe some of the portraits reproduced, you probably will not know whether the person belongs to the criminal class or not. That is the way some of you portray men who want pictures for publication in the newspapers. Some actually look as if photographed at the police station under the Bertillion system for criminals. It doesn't take a professional photographer to render that kind of stuff; anyone can produce such things. Such work brings discredit on the profession and seemingly lowers the personality of the man it represents.

My mission is not exactly to show you lightings, but what I want to show and drive home to you is a few points that will well repay you for coming to Washington, if you remember them.

One point is how to control the situation of the sitting with four plates—not a dozen.

Then will be considered how and at what time to make exposures. There is a certain time when the exposures should be made for the best results. While I dislike to use the much misused word "psychology," it is nevertheless in its proper place here when we say there is a psychological moment to act. Now, for the exposure, and here is the question, how are we going to get the subject into prime condition, and then press the bulb without his knowing it? Don't forget—**without his knowing it.** Now, if the sitter is not nervous, and is a friend of yours, that is a different matter. But remember your success lies in the fact that you press the bulb when the man does not know it. To get the right expression is some trick. You cannot talk nonsense to all men, a professional man, for instance.

Did you ever notice those professors, physicians, etc.? They do not say much. They are in the habit of listening. The hardest man to handle is the man that does not respond to your line of talk, because you never know where you are at. You do not seem to hit the right point, and you feel like sticking a pin in him, and making him open his mouth. He is the hardest man to get a picture of. But there is always **some** way, you

FIRST PRIZE (1923)
Children's Portrait Class
(P. A. of P. N. W., Victoria, B. C.)
By BERGER STUDIO
Portland, Oregon.

FIRST PRIZE (1923)
Women's Portrait Class
(P. A. of P. N. W., Victoria, B. C.)
By THE WILSON STUDIO
Astoria, Oregon.

know. Sometimes I hit him on the knee and say, "Wake up!" I don't care who the man is he likes it just the same, and he feels you are interested in his expression, and he generally warms up. That always has a great effect on the sitter. He says, "I will have to brace up." And he does. Now, try these little things.

You may think it easy to make pictures of men. I want to tell you, ladies and gentlemen, the man who is capable of making good portraits of men is capable of making good portraits of anybody—even of ladies and children. He may not be up to the highest in making groups, because that is quite a different thing; but if he can make pictures of men I will vouch for him that he can make pictures of ladies. There is probably more money in making portraits of ladies than there is in making those of men, and it will not do to throw it all over and make portraits of men only. Pictures of men are all right, but the money is in the pictures for the ladies, because they come oftener and bring their friends and like to exchange photographs with them. So don't discontinue making pictures of ladies, as Mr. Stearns said I was going to do. I am not going to do anything of the kind.

One word in regard to what we call individuality in pictures. I believe that there is no other subject less understood than individuality in a portrait. There are two ways of looking at that question. I heard a photographer say, "I don't want my own individuality to go into that portrait. I want the sitter's individuality to show," etc. I maintain there is no such thing as that. I do not have to make a man's face over. God made it before I ever saw it. But I do believe in one thing—that I have to portray that face with the expression that pleases the man's family, or the one for whom it is intended.

When it comes to individuality in a portrait, though, you can make up your mind that your personality speaks in it every time, and you cannot get rid of it. I cannot make pictures like Pirie MacDonald nor like Dudley Hoyt to save my soul. I am not going to try. Probably **they** can't make them like I do.

Your patrons come to you because they like the individuality of your portraits. Why, then, should you try to get the individuality of the sitter? They are not makers of portraits. Now, your own individuality will show in your work, and it should show. That is your trade-mark; that's why people come to see you. And don't you go and switch from one lens to the other to make the pictures.

If you make a certain type of pictures of men and everybody likes them and praises them, and thinks they are just right, don't go and switch over and say to yourself, "Now, I will make a different style, and with an entirely different lighting. I saw those nice pearly little lights at the convention in some of those pictures." Why, you probably could not get results like that in a hundred years! Stick to the one thing you succeed in, and hold down to it and try to improve it, because that is why your clientele is attracted to you. They come to your establishment because

they want the style of portrait that you are making, and not someone else's. Perhaps the other fellow makes the very style that you are trying to change to. So stick to your own style, which shows the individuality of your own portraits. Do not try to make them like everybody else's.

When you see all those portraits in the hall don't you know that they are made under different conditions? Some use electric lights, some daylight, some probably could not produce those pictures again to save their souls from perdition. They are accidents. When you come to a convention like this don't you realize you see the cream of all the fine work that is done in the country? You have no idea how many pictures could be rejected that are hanging in the hall because they are not really up to the mark. But this organization should encourage those who are really trying to come up.

I happened to be a judge of those pictures a year ago, and now again this year, and I can see how a great many men are improving each year. Now, we must encourage those men, providing they also support the organization that helps them. I believe that every photographer has a duty to fulfill towards this organization. Ten dollars dues is nothing. Look at what the Typographical Union did. Ten years ago there used to be printing shops that turned out a thousand circulars for about five or six dollars. You cannot get them today. You pay about twenty-five or thirty. Why? Because every print shop in the country pays one per cent towards the organization of the Typographical Union to further their business in getting better prices. That is quite an item.

What are you paying? Ten dollars a year is just a drop in the bucket. Still you think that this organization ought to bubble over and hand you everything on a silver platter when you come to the conventions. Start in with a different view in mind. You have a lot of problems to solve in your profession. Support it and do not expect the manufacturers to do all things for you. I believe they are doing splendidly, but do not think that the manufacturers should support your conventions to the limit, that you can have the cream of things. It isn't fair, gentlemen. Put yourselves on your own feet and do not let that little miserly ten, or fifteen, or twenty dollars stand in your way. That's why our profession has not yet come to the top.

Now, those little fellows in the outskirts of cities or different states probably do not belong to any state organization. If they do not, there is something the matter with the organization. I believe that every state organization ought to have its small units, its small sections, because when you once have these small units you are making a big unit of that state towards this organization, and when you have all the states in line you will have a good national organization, and that's what we need. When you have a great big national association and you can look upon that association as being the educator, a body that will educate all your assistants, your sons or daughters that ought to follow you, that body should be supported. If you once support it, and have control of that educational fea-

ture, you can do away with the pirates who come and rob you at different times in your cities, and walk away with the money that rightfully belongs to you, while you pay the taxes! At the present moment you have not a weapon in your hand, not a weapon. However, that's not my business now. I am going to demonstrate how to make pictures of men.

Mr. Ames, sales manager of the Eastman Kodak Company, is the first subject this morning. I use probably the most simple method in lighting that is known. I do not believe in more fussing than is necessary. I am also one of those fellows that follow the road of least resistance, and get results and money! Now, following the road of least resistance in the skylight, or in making negatives, isn't all there is to it. That may be an easy road after you have accomplished certain things and know your grounds. I am here under a strange light and probably cannot show you the things as I would like to, and must ask your indulgence. I may not be able to drive everything home as I should like, but I will explain it as well as I can.

There is no revolving chair here. I believe men all are created pretty nearly alike. They all have a head, a neck and shoulders. Now, I do not care to see both shoulders showing; if I see one and half of the other, that's enough.

(Illustrates how to bring part of shoulder into picture.)

Gentlemen, you can win every time with that pose. Just two exposures, then I turn the man around and his wife cannot say I didn't photograph the right side. I photograph both sides. Two exposures for each side.

Now, I use the same principle exactly, showing the tip of the ear, and then twist him around just a little. The first time show the tip of one ear and then the next picture cut it off. It doesn't hurt him any when you cut it off. You can make different kinds of lightings, of course, dealing with different men subjects.

Now, as to spotlights. I believe there is no accessory finer than a spotlight. I also believe that there isn't anything that is more **misused** than a spotlight. They call them "jazz" now; well, it is pretty nearly jazz stuff. But spotlights, nevertheless, are a great necessity if you want to make pictures with pep. You control the spotlight entirely with a screen. There's a ray of sunshine near the dark spot. It's just like when you smile at a poor person in the street and hand him a quarter. It's a ray of sunshine. Now, no matter how you turn this man around you get the ray of light. (Puts rather strong light on one side of head, makes exposure.)

Mr. Eli Sheetz, of Washington, D. C., the producer of the famous "Martha Washington" candy, was the next subject.

I do not have to tell this gentleman how to look—he will always look right. The character is always printed on a man's face. I do not know this gentleman. I do not know much about him, but when you meet this kind of a face, anywhere, you know he is kind. You know this man

A BERKELEY HOME

By GAVIEN F. McCULLAGH
Berkeley, California

would have malice in his heart toward none. I am not sure what he does, but I believe he makes candy. I believe, too, he would give the shirt off his back if he had to, to help someone. That's the kind of a man he looks to be. It is printed all over his face and you can see it. And now to portray it.

Don't be afraid to take a man's head and turn and twist it any way you want to. Don't be afraid to handle your patron; men are not poisonous. Just take hold of them.

I never have an assistant in the skylight, operating or posing room, or whatever you call it, because I feel that two is company and three a crowd. Now, ladies and gentlemen, there is a great deal in that. Some way or other you talk to a man or a woman and probably a guest or nurse is sitting here with one or two children—a servant or somebody like that, or a friend of theirs. You talk to that lady direct, and her mind will go over to that third person in the room. She will always consider that third person and consider how it is going to sound to him before she answers. So you cannot quite control expressions as you would when you are alone with them in the room. It seems queer, but I have noticed throughout my career that two is company and three is a crowd.

Now, of course, balancing of light I leave to you, as I said before. But notice the effect. Many times the people object to that little light spot on the nose, but that little spot on the center of a picture is not objection-

able; in fact it is desirable. You must use a little judgment in the lighting of a wrinkled face. Sometimes, as a man grows old, wrinkles show up, and are not as pleasing as in this case.

It will be impossible for me to give you an exact idea of just when I make exposures of the sitter, no matter who it is. As I said before, I never let him know when I make the exposure, and I keep the bulb in my hand all the time. When I do the posing, I generally put the bulb in my pocket. I can go right up to the sitter, as a rule, and oftentimes I make the exposure as I walk away from him. I know he was all right a second or two ago and he probably is still all right. Oftentimes I pretend to shift the plate, and make the exposure right at that moment, when the man doesn't know it.

Those are some of the tactics I use to make successful exposures.

Unique Notice of New Telephone Number

One of the most unusual announcements that Camera Craft has seen for some time is the change of phone number notice which Lothers & Young Studios of San Francisco recently mailed to their clients and friends, and which is reproduced above. The growth of the studios demanded enlarged telephone facilities and the installation of a switchboard system necessitated a change in number. As one of the chief departments of the studios is devoted to photographic illustration, it was decided that the change of phone number created an opportunity to do something unusual in this line, which would not only carry the information regarding the new number but act as an advertisement of photographic illustrations at the same time.

The page of the phone book containing the studio's name was photographed on a black background. The model was then photographed in a position that would fit in with the layout in mind. In order to bring out the name of the studios in the print of the telephone page a light piece of tissue paper was placed over the name on the negative when it was being printed. The print of the page was then carefully mounted on heavy mounting board. The print of the model was carefully cut out with a razor blade and edges sandpapered. The print was first soaked and then carefully mounted over the print of the page in the proper position. The lettering at the top was then done and the composite photographed through a diffused focus lens and printed on Azo H. Actual 8x10 prints were sent out to the entire mailing list, in Manila envelopes with a sheet of cardboard to prevent mutilation in the mail.

CHANGE OF PHONE NUMBER NOTICE
By LOTHERS & YOUNG STUDIOS
San Francisco, California

Picture Hunting in Oregon with a Camera

By H. W. Barr

With Illustrations by the Author

When the editor of Camera Craft requested me to write an article on the above subject I was delighted, as the subject exactly covers my favorite sport. I am afraid, however, that I shall not be able to do it justice, as writing is a little out of my line. I will, therefore, content myself with giving a few points regarding my personal experience.

First of all, let us consider the matter from which a good picture can be made. Of course, there are numberless subjects, but as space is limited, suppose we confine ourselves to a couple of the most common, say ordinary landscapes and flowers.

Do not fall into the error of thinking that the scenery must be striking or beautiful in order to have possibilities of making a fine picture subject, or the flowers must be remarkable for beauty or quantity. It has been my experience to find that the daintiest wild flower and the most commonplace views, treated in the right manner, can be made into a picture invested with beauty, appeal and mystery. Not that Oregon is lacking scenically, far from it, but most of us, no doubt, have had to live in places where conditions seem unfavorable to the great delight of hunting with a camera.

It is difficult to explain exactly what I mean about landscapes. If you agree with me in believing that the general effect of a picture is what one should consider in taking any scene, you will not judge me to be exaggerating when I say that the best and most interesting of my pictures have been taken of such matters as a few trees on a creek; ditch bank; a road winding through a neglected field; shaggy trees; a clump of willows along an irrigated canal; a hill or even a pile of rocks in silhouette against a cloudy sky. It is all in the angle at which it is taken and the atmospheric effect.

It is a common fault of amateurs to get too much into their pictures. They take the first view of a landscape they choose and everything about it they can get in. The result is a record and not a picture. For instance, there came to my hand the other day a negative someone had made of an old Mission. There was also included a water tower and windmill, a barb wire fence and various other objects which would have been all right photographically for a barnyard, perhaps, but which were decidedly out of place in a Mission subject. The print proved to have real picture qualities when trimmed down to eliminate the discordant elements.

Even a wonderful sky can be made secondary by too much detail in the foreground.

The camera's eye is not so pleasantly discriminating as ours, so the best thing to do is to limit the view to one main feature and one or two

THE TUMALO GOES TUMBLING
THROUGH THE FOREST
By H. W. BARR
Bend, Oregon

THE WINDING STREAM
Near Bend, Oregon

By H. W. BARR
Bend, Oregon

other sufficiently unobtrusive details to assure their remaining minor. Look for the one best feature; study your subject; narrow your vision and consider only the points you want to stand out. If you can't decide and yet feel that the place has possibilities, take the whole and then look for the thing you want in the print, and be ruthless about cutting down, once you have found it.

It is a standing joke in my family about my craze for pictures. They say that every holiday, no matter what the time, weather or season, if I am missing, my camera is too. They can be sure I'm off scouring the country for game for my album instead of the table. It is true enough, too. Weather has little to do with the sport so far as curtailing it is concerned. Rain, snow, fog, sunshine, clear cold or hazy heat, each has infinite possibilities. Take fog for instance: at any time of the day it clothes objects with intriguing mystery. And morning sunshine through a slight fog—could there be anything more beautiful? Rainy afternoons are especially good for many subjects.

Which one of us who has not had the opportunity and has not longed to capture a certain effect on a snowy day? It has been my good fortune to succeed rather well in this line and I try never to miss a chance.

I prefer the Struss Pictorial lens for most landscapes and snow pictures. Stopped down to f:8 the lens seems to give sufficient sharpness and yet keep that frosty, snowy atmosphere. Panchromatic films, with a K2

filter, one to three seconds exposure, and tank development, is my usual procedure.

I prefer landscapes without the human figure. Perhaps I am a little extreme on this point, but it has always been a hobby of mine to try for the perfectly natural, and anyone knows how difficult it is for the average person to be unconcerned over having his or her picture taken. Then, too, I often like to move my camera several times to be sure and get the view as I want it and I don't blame people for looking strained when I do condescend to leave them within the composition.

"Picture Hunting in Oregon With a Camera." It seems I haven't said much on that subject. You know the sport is the same the world over. It isn't the place you are in—it is yourself that counts.

The sincere devotee can find more than enough material in any corner of the world. We, of Oregon, are particularly fortunate in having just about everything that could be wished for, and that within easy distance of any part of the state. From Portland it is only a matter of a couple of hours or less to mountains and forests or the Pacific ocean. The majestic Columbia river is right at hand, and from the Columbia River Highway some of the most magnificent views in the world can be had.

The mountains around the Bend country, in central Oregon where I live, abound in lakes and streams; the rivers in rapids and falls. We have deserts and fertile plains and valleys. Whole areas covered with ages old lava flows; ice and lava caves and snow peaks too numerous to mention. But heaven preserve us from being boasters. I will not say any more, but really Oregon is a camera hunter's paradise. In central Oregon we have three hundred or more days on which the sun shines every year. There is only one month in the year during which it is a little hard to get good pictures, and that is August. The haze and smoke from forest fires make it rather difficult. It would seem that the careless vacationists, like the poor, are always with us, and will be as long as Oregon remains such a happy hunting ground for campers.

FORTHCOMING EXHIBITIONS, 1924

October 17th to November 23rd, 1924—San Francisco International Salon. Last day for receiving prints, September 29th, 1924. Particulars from H. A. Hussey, Secretary, 64 Pine Street, San Francisco, California.

October 4th to November 14th, 1924—The Eighth International Salon of Photography under the auspices of the Camera Pictorialists of Los Angeles. Last day for receiving prints, September 15th, 1924. Particulars from John C. Stick, Director, 811 Washington Building, Los Angeles, California.

September 15th to October 25th, 1924—The 69th Annual Exhibition of the Royal Photographic Society of Great Britain. Last day for receiving prints, August 15th, 1924. Particulars from H. H. Mackloed, Secretary, 35 Russell Square, London, W. C. 1.

August 23rd to September 6th, 1924—The 33rd Annual Toronto Salon of Photography. Last day for receiving prints, August 1st, 1924. Particulars from J. H. Mactay, Secretary Salon Committee, The Toronto Camera Club, 2 Gould Street, Toronto, Canada.

"An Illustration for the Arabian Nights" How the Picture was made

By Fred R. Archer

This picture was made on a movie set. This alone condemns it with some of our modern critics. However, I have seen several of these critics dashing around this same lot hoping to get some pictures, but that is another story.

It doesn't make much difference, however, where this one was made, as any suitable location would have made just as good a picture, whether it was a theater lobby or an entrance to any other building. It was not made during the filming of a picture and the model was not an actor.

During my travels over the lot I noticed this archway and figured that at some time during the day the light would come in from the back and fall upon the floor. So I watched for the correct time that this happened and having in mind a tale from the "Arabian Nights," began to build my picture.

Having figured out what I wanted I persuaded one of the boys in the office to don the costume (a few yards of cloth, a sash and an old battered turban), and giving him a scimitar made of wood we proceeded to take the picture. Remembering the story as I did, or as I thought I did, we began.

"The youth was entering the silent city. In the corridor he had passed the sleeping guards. On he went, everything was silent and all the people in a strange sleep." Click went the shutter and I had my picture of the youth entering the silent city with his scimitar in his hand to protect himself.

And then with a certain sense of satisfaction I re-read the story, and there it was:

"No one will harm me said the prince, seeing that I come unarmed."

Almost the smallest thing in the picture, the scimitar, had spoiled the illustration. Moral: If you want to illustrate a story read it first, not afterwards. Trust the author and not yourself, for had I been entering that city I know I would have had a gun in each hand.

By forgetting the story it was supposed to illustrate and looking at it as a picture maybe it will please those who see it. I hope so.

Data: The camera used to make this picture was an Ipsco reflex, size 3¼x4¼, fitted with a diffused focus single lens of uncertain ancestry. The exposure was 1/75 second at f:8. The Standard Polychrome plate was developed in amidol. Print, an enlargement on Arthur Carbon Black paper, developed in hydrochinon.

AN ILLUSTRATION FOR THE ARABIAN NIGHTS
(London Salon)
By FRED R. ARCHER
Los Angeles, California

The Eye and the Camera

By H. D'Arcy Power, M. D.

It is a long and an old story now as to whether the camera can make pictures, even in the hands of the greatest artists, of the quality and value of the brush. The battle is waged back and forth, and perhaps has been practically settled by the successes that have attended not a few men who arrested the public attention by the pictorial nature of some of the work of the camera. Within recent times what was becoming a more or less dead issue has received new life by the growing success of photographic processes reproducing objects in color, as well as in form and shade.

Many arguments have been advanced why pictures by the lens should not take their place along with other forms of art work, and much acrimony has been shown by some of the disputants, as the pages of some of the English photographic journals of the last two months will testify.

In all this controversy, the main point involved in the issue has been largely overlooked. No consideration has been given to the manner in which the human eye and brain see and form their concept of the outside world, in comparison with the record which the camera makes.

It is here proposed to bring these two different types of seeing, if we may so employ the term, into comparison, and note exactly the way in which the photographic record differs from the eye record, and in particular, to realize the gulf which lies between the two.

We will first note the points of resemblance. The camera is set up in front of a given section of the external world; the light coming from the various objects in it, each according to its mass and intensity, reaches the surface of the lens, passing through it and falling upon plate or ground glass, giving there a replica of that world. With a good lens, the most minute details will be discoverable on the receiving surface. As we all know, such lenses and cameras usually accept an extensive angle of view, and the average focal length of their lenses will be from five to thirty inches. Such a camera and lens will have adjustments to diminish the light received and to alter the focus for far or near objects.

In comparison with this, let us note that fundamentally the receiving apparatus of human vision is built upon precisely the same plan. It, too, is a "camera obscura" with the lens system in front and a receiving focusing-screen behind. The angle of vision, not considering the interference of the neighboring parts of the face, is very wide, the opening to the lens through the iris being equal to about half the focal distance of the lens, which is about twenty-two millimeters. The diaphragm can be contracted until it represents about f:8. The only real difference in general construction is in the mode of focusing, which is by altering the convexity of the lens; and in the fact that the focusing-screen curves in correspondence to the lens, instead of being flat, as it is in the camera, the curved

CARMEL MISSION
By H. S. LAWTON
San Francisco, California

screen obviating the loss of definition at the periphery.

So far we have identity, now for the difference. Both apparatus have to make a record; the one to be rendered first on a negative, and later in prints from that negative, the other to be given as a visual impression to the brain, and afterwards stored for memory by the mind.

The camera record is made by changing so much of a salt of silver into certain quantities of metallic silver, as are proportionate to the quantity and quality of light falling on the negative. It is a record of the actual number and mass of the wave impressions coming from the external world and focused on its surface. There is no limit to the number of objects so represented, or to the minuteness of the details, except what may result from the size of the chemical elements that are to receive the impression. The photographic image therefore records all variations of form which the picture may contain, and all modifications of light and shade, and in negatives, which have been corrected for color effects, the true values—that is, the amount of light, irrespective of its quality or color, given off from a surface. Thus the photographic record is the most comprehensive registration that can possibly be conceived of the light variations met with in nature. In final terms, it is a measure of wave lengths and the chemical action resulting therefrom.

Now let us see what is the **eye** record. To begin with, we have no reason to think that any record is made in the eye itself at all; but the focusing-screen of the eye consists of the extended terminations of the optic nerve whose filaments arise in that region of the brain which is perceptive of light, and it is there that the record is made and the memory retained. Here let us note that the part of the back of the eye which is acutely sensitive to light, the so-called "yellow spot," is an extremely small surface, and that while the rest of the retina has a hazy perception of light and form, it is only this particular area that gives us the details of the external world forming our mental picture. As this spot is only capable of receiving five degrees of the view in front of it, the eye has to be shifted from point to point, so that the whole of the field may have its light-rays brought to focus upon this small area.

We therefore reach at once this striking difference between lens-picture and eye-picture: that whereas the lens seizes its whole view in an extremely short period of time, and in one mass, the eye picture is gained only by directing the sensitive yellow spot to every part of the field of vision. If such direction is not made, then the parts to which it has not been turned make no impression on the brain; in other words, they are not seen.

Secondly, the brain must be in a state of attention. We all know how we can walk through the streets and yet see nothing; we all know that we can pass our friends under conditions in which their images are undoubtedly projected on the retina—but we see them not.

(To be continued)

CAMERA CRAFT

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Vacation—The Amateur Photographer

Vacation time is here! Vacation time—what thoughts arise in our minds when we think of it? Many amateurs can credit their start in photography to some joyous vacation time, because the desire to bring back records of the many happy hours spent in the out-of-doors made them invest in a camera.

After the vacation is over, many lay their cameras away and do not use them again until vacation time rolls around once more. I would say to all those who are in the habit of doing this, that they are missing opportunities to record many other happy doings throughout the year. Photography is a hobby that can be practiced all the time.

Although I played with cameras when a small boy, my first real start in photography was made at vacation time. How well I remember that first camera loaned to me by my grandfather. It was a home-made box camera that carried twenty-four 3¼x4¼ plates. It was fitted with a single lens and had a drop shutter, the speed of which was controlled by an elastic band. To increase the speed of the shutter, the elastic band was stretched a little farther than for the slower speed. Vacation that year was spent at the seaside, and the first fodder for the camera was a series of yachting scenes. The average of good pictures obtained was high.

When the vacation was over I kept right on using the camera, photographing anything that appealed to me. The average of printable negatives was not so high as those obtained at the seaside. What was the reason for my lack of success? It was the fact that I did not understand that different types of subjects require different exposures. (The amateur now has the choice of many fine exposure meters which will eliminate this trouble and aid him in getting better pictures.) I was on the verge of giving up in despair, when grandfather came to the rescue. He selected several of the negatives and explained to me that some subjects required more or less exposure than others, and that the time of the day also played an important part in determining the length of exposure necessary to obtain a fully exposed negative. With his suggestions to guide me, the average of good negatives were higher. I began to feel happy again.

After a period devoted to photographing anything and everything, I found myself specializing on particular types of subjects and it dawned upon me that I was, perhaps, making progress.

My own experieince is, of course, similar to that of many other amateur

photographers who have commenced their photographic careers by photographing everything they came across, finally settling down and specializing on one particular type of work.

There are so many different branches in photography that one can, in time, select the particular type which will enable him to best express his personality.

The interest never lags in photography, as there is always something new to learn, and new experiments to make. Even during the winter months or rainy days there is something to do. It may be enlarging, printing, or even making photographic studies.

Just one last thought. If you will only practice photography in a whole-hearted way, it will more than repay you for your efforts; and your successes will so far outnumber your failures that you will be glad that you were inspired to make your first snapshot.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

Coming events are beginning to cast their shadows. The uniform flow of membership correspondence since January 1st is now beginning to be interspersed with touches of convention matter and we suddenly realize that Summer is almost here again.

There is lots of work to be done during the next fifteen weeks; more, in fact, than the average fellow who has not been through the mill realizes. Details without end, in an effort to have all running smoothly for the members when they reach the convention hall, and in addition a multitude of membership matters that are delayed until the eleventh hour. Just why, we cannot see—but it is a pretty safe bet that 90 per cent of those who will pay their dues in July have already decided to go to Milwaukee in August and are merely indulging in a little procrastination.

Association dues paid in April would lighten the burden of the trip to the convention, would give the secretary a chance to take care of them before time is pressing and materially aid in handling registrations. We do not think this is asking very much of the unpaid members, especially when they and their fellow members will be the chief benefactors.

When we speak of the Picture Exhibi we do not consider that we are solicitin your exhibit. It is your **privilege** to sul mit three or more photographs and w want at least one thousand photographe to take advantage of this fact. We wa our second vice president, Mr. James Brakebill, to be so swamped with print the only excuse for a poor exhibit will because you American photographers car produce the goods. Now, don't let t foreign exhibits be the whole show. Sta right in after the Easter rush, prepa your prints, have them ready to mail a get them off your mind.

What about the hanging, you say? did we, at first, till we found a solutic We have drawn the dead line on July 19 as the last day on which pictures will received for opening. This will give ample time to open all packages, catalog the prints and have them ready for judgi and hanging the week previous to the co vention. With time for deliberation, grou

ing and hanging, and a wonderful hall in which to make a display, there is every reason to expect an exhibit worthy of the P. A. of A.

Our associate member of Smyrna, Asia Minor, Andre Coconis by name, has been ost from the rolls for the past year and ow turns up in Athens, Greece. In a let- er received this week he states that the ire, following the invasion of the Turks, ompletely destroyed his home and busi- ess quarters and he considers himself ucky to have escaped alive. Building up business in Athens is slow work, but he opes eventually to get back to good tanding in the P. A. of A.

Winona School

s running true to form, the only change oticeable being an increase in the number f inquiries for more detailed information. his is easily answered in our prospectus, hich gives the "What, Where and When" f the school, together with a few expres- ons of last year's students. We think it pretty good evidence that Winona School aches photography, to see seven of the 923 class already registered to absorb ore of Director Towles' inspirational in- ruction. Five others have decided to send studio employees. Judge for yourself—is this unparalleled course in photography worth $50 of your money and four weeks of your time? If so, set aside July 7th to August 2nd at Winona Lake, Indiana, as your 1924 vacation period, send a $10 registration fee to the General Secretary, P. A. of A., 722 Bond Building, Washington, D. C., and pay the balance of $40 at the school.

Special

Particular attention is called to the form of railroad certificate to be used in connection with the Milwaukee convention. The old familiar form, obtainable at local ticket offices, will be used this year to avoid the necessity of having to write to the General Secretary for one. This form will require validation at the Auditorium, but cannot be executed until a minimum of 250 have been presented. By all means, do not forget to secure your certificate at the time you buy your ticket to Milwaukee; they cannot be issued at the convention and will be necessary to buy the return ticket at half fare. Regardless of the number attending the convention, there will be no reduced fares if 250 certificates are not turned in for validation.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

nthly Meeting of the Photographers' Association of California, held at Hotel Stewart, May 12th, 1924, Dinner at 6:30 P. M.

After the routine business, Mr. L. L. pple reported for the Convention Com- ttee, that Progress, with a capital P, d been made; that a second series of culars had been gotten out, four thou- d of which had been sent out for dis- ution by the dealers to all photogra- ers in the States of California, Arizona d Nevada; that very encouraging news d been received in regard to the plans for the Convention. He wished to thank the publishers of "CAMERA CRAFT" for the double page announcement in the May issue, which would make materially for the gathering of a big crowd from California. That, with the assistance of Mr. Young and some others, nothing was being left undone.

President Morton: The work of that Committee is in very capable hands. Please sign up as soon as you possibly can. At the suggestion of Mr. Lancaster, we have decided to hold the next meeting of this Association in conjunction with the

Eastman School and invite the demonstrators to attend. Mr. Young has been appointed Chairman of the Entertainment Committee for that evening.

Gabriel Moulin, Chairman of the Educational Committee, distributed the following questions:

What type of advertising would you advise for a large Portrait Studio in a city the size of San Francisco?

If you opened a one-man studio in a small town, how would you proceed to get sitters?

Have you read the "Code of Ethics" sent you?

The thirty minute discussion which followed seemed all too short for the members who vigorously defended their views. The result gave to those present much food for thought and crystallized many a half hearted thought which had not been thought out to completion.

President Morton then introduced Miss Kathleen Dougan and Mr. H. Lancaster. The photographic apparatus, used by them in their demonstrations, was loaned by Hirsch & Kaye.

The models used were furnished by Lothers & Young.

It is impossible to give the demonstrations satisfactorily owing to the absence of illustrations, but the following extracts will give a hint of their real value to those of us fortunate enough to be present.

Miss Dougan: In actual work I only use a small camera which I can easily carry around in my hand. My backgrounds are of theatrical gauze. As you see it is light to carry and very effective. I go out and make home portrait sittings, which I find is quite a pleasant matter. I use artificial light supplemented with the natural light from the windows. I always use a table for the child to sit upon for in so many children's pictures, the subject is not looking in the right direction as the child is in a low chair and is therefore bound to look up at the photographer, which spoils the whole effect. To prevent the child from looking at you, it is well to get the child to tell you stories; the child will be interested and, what is of most importance, off its guard. A strong light from a distance gives a better effect, because it gives the best modeling. It is very important to talk to a child, keeping it interested, because the expression is the most important part of the picture; that is what, in the picture, the mother wants to look at again and again. It is not the lighting or the background, but only the child's beautiful expression that interests the mother. If you want a certain type of expression, it can best be obtained by repeating some poem or story which will be illustrative of the expression, or rather of the emotion which you wish the child to express on its countenance.

Mr. Lancaster: What I will endeavor to show you more particularly is the effect of light on the subject in relation to photography, and especially in relation to the modeling of the subject as seen in the picture. The Old Masters used colors, pigments, to illustrate light; but the photograph of the pictures of the Old Masters invariably shows them with a very dark background and a low tone, and those who had the Old Masters to study were misled thinking that they were making pictures like the Old Masters made them. Rembrandt has just one line of light, wherein lay tone; he expressed light in colors. But in photography, to make our pictures, to work along the lines of Rembrandt, we do not use colors, and so we have to use light as a medium of thought and expression. In photography, light is only a means of expression. To illustrate mechanically what I mean—If I should put light into a pot or a tin can, or anything with which I could use a brush, I could put that light just where I wanted it. You will notice that the farther away from the subject is the source of light, the rounder the ball appears and the shadows are less sharp. In photographing a man with a very little hair on his head, if we are not careful the head looks like a piece of marble; but bring the light lower down so that there is a shadow on the upper part of the head the features are brought out more distinctly and the scantily thatched dome less conspicuous. Then a very fat man usually troubled with heavy wrinkles. To make these less conspicuous, the light should be thrown directly into them. The

reason that diffused sunlight is so good or portraiture is because it appears to ome from all directions, it is all around, nd the source is a distant one. You will otice that the globe has a round, a globu- ar appearance when the light is diffused y distance, and that it looks flat when the hadows are too sharp and black. There re no black shadows in nature, and there hould be none in portraiture. To be a successful photographer you must be a student of art, you must love your art; you must be a student of chemistry, and love chemistry; you must be a student of your fellow men, and love them—otherwise you have nothing to sell. Put yourself into every piece of work you do; be honest with yourself; be honest with your neighbors—and the world will be proud to recognize you as a photographer.

Plan to come to our next meeting, June 9th, the night before the Eastman School opens. We plan to make it a jolly get-together meeting.

P. N. W. Association News

PORTLAND, THE CONVENTION CITY

AUGUST 25TH TO 28TH INCLUSIVE

C. F. RICHARDSON, Secretary, Milwaukie, Oregon

The Photographers on the Pacific Coast west of the Rockies are cordially invited to attend the convention at Portland, Oregon, August 25th, 26th, 27th, and 28th, 1924.

The Pacific Coast Convention

In this department, in the May issue of amera Craft, information was given re- arding the Auditorium where the Pacific ast Convention will be held in Portland, egon, August 25th to 28th, inclusive. ere was also information regarding the int exhibition, the membership dues and e two cups presented by Camera Craft r the best portrait and commercial prints the exhibition. This month we propose t give further information about who's o in the demonstrations.

The leading portrait attraction for the nvention will be a demonstration by ank Scott Clark, Detroit, Michigan. Mr. ark is famous for his portraits of brides d his skill and technique, especially in handling of white draperies, is known all members of the craft. He is one of most successful men in the profession ay, and his name is a guarantee for nething that will be different, something t will be instructive and well worthy of r attendance at the convention.

Another demonstration, that you cannot afford to miss, will be given by Ralph Young, of the firm of Lothers & Young, San Francisco, California. This demonstration will be entitled "The Human Interest in Photographic Illustrations." Mr. Young, in his demonstration, will start at the beginning by building the set and carrying it right on through, especially emphasizing and bringing out the human interest side. He will tell how and why the particular models were selected for the illustration; show how, by surrounding them with the proper atmosphere they respond to it and express by action and facial expression the desired mood. All this is necessary in successful illustration work, as the models must actually live and think their part to register properly before the camera.

No convention is complete without the dealers. Photographers desire the opportunity to see what is new in apparatus and they are going to have that desire satisfied. The dealers will be well represented at the convention. The Howland & Dewey Com-

pany of Los Angeles and San Francisco, will be there. Their display will be in personal charge of H. W. Sanford, manager of the San Francisco branch of the company. He will be assisted by H. A. Lindsay, their outside representative. Both are well known to the photographic trade and both have an abundance of first hand information.

Hirsch & Kaye of San Francisco, will also be there. Their display will be in personal charge of William Wolff, their outside representative. Billy is well known to the trade and it is hardly necessary to say anything further about him.

The above are only two of the many dealers who will be there and once again we say, commence planning now to attend.

The Print Exhibit

If you haven't made your prints for the exhibition, now is the time to get busy. The exhibition promises to be the best ever held by the association and we are sure that you will want to be numbered among the successful exhibitors. Do not delay any longer, get your negatives together, make your prints and send them along.

Our secretary, C. F. Richardson, has been made president of the Photographers' Association of Portland. This organization has been formed for the immediate purpose of co-operation to put over the photographers' convention of the Pacific Coast which will be held in Portland late in August. The local association is affiliated with the Pacific Northwest Association.

For the Professional

In the Interest of Commercial and Portrait Photographers

THE ART OF GIVING PHOTOGRAPHS

Qualities of the Original Canvas*

By W. Livingston Larned

Photography, in advertising, has gone far beyond the mere camera reproduction of an object, of figures, of still life, in the mood of commercial faithfulness to the matter it is asked to picture. There is a vast difference, as we all know, between an illustration made by a camera, and the illustration which employs the camera as a brush, as pigment, as a mere accessory.

But perhaps the most interesting development is one in which the operator frankly consents to bury the personality of his working implement, and voluntarily attempts to use his sensitized plate as a "canvas." He becomes, indeed, a painter. His ambition is so to compose, light and "feel" his subject, that it shall come forth, transfigured, a thing of great artistic skill.

Photographic illustrations appear in modern advertising which baffle the eye of experts, so closely do they approximate what might be done by a famous painter, with his brushes and his tubes of color.

The ambitious photographer who work in collaboration with an advertising campaign now seeks to "feel" his theme, much the same manner as might a painter at his easel. All of the old, brutally obvious effects are eliminated. Often it only by close scrutiny and study, that you can actually tell the photograph from the original canvas. And this is in every sense an exalted art.

There are portrait studies in our advertising of today which look as if taken from some rare old painting. They have few none of the earmarks of the conventional camera study.

This work has brought us, quite naturally, a new type of photographer. Many of them are, first of all, true artists with the ability to sit down and create a pen pen or wash illustration. It is no uncommon practice for commercial artists today first to pose models and make photographs before they begin to paint a picture. It is the newer idea of the application of living models. Some may say, and with a little justification, that this is a "lazy," a commercial method, but the rush and urge

Courtesy of Printers' Ink Monthly

exactions of advertising often make it a compulsory expedient.

Has Fascinating Possibilities

But because of these experiments with the camera, certain artists automatically drift into photography, and concentrate wholly on its fascinating possibilities. They find they are in a position to be just as original, artistic and resourceful.

As representative of the newer school to which we refer, attention is called to a recent illustration used by the Aeolian Company.

While in reality a photographic study, it almost defies classification as such. In very artistic way, it measures up to the atmosphere, feeling and technique of the painter with a living model before him. Several things may contribute to the success of a composition of this character: lighting, first, which makes for beautiful lights and shadows; background accessories, next, the tapestry design, and finally the unaffectedness of the posing of the figure.

We are inclined to believe that past efforts in photography where living models were used, were vastly decreased in artistic effect because of the rigidity and "posed" look of the models. They felt they were having their "picture taken," and therefore looked it, when the negative was developed.

The artist may slightly exaggerate, may put feeling into poses, and may cause his characters to do certain little human things which may not occur to the camera artist, in the bustle and hurry of his hour. This very fact makes it necessary, in producing the finer examples of advertising photography, to "take sufficient time," and to experiment.

In order to secure one satisfactory print, it may be necessary to make a dozen exposures, and this is very often done.

A Willard Battery illustration comes to hand as a piece of evidence in the case. A car owner is standing by a counter, listening to the enthusiastic praise of the product by an accredited service man. But trite as the situation may be, the camera has managed to make a "painting" of it. And we attribute the success to posing, to animation, to natural expressions on faces.

A WESTERN ELECTRIC WASHER GIVEN THE BEAUTY OF HOMELINESS

Everything has been taken just a little further along than the camera study is apt to do. There is conscientious and permissible exaggeration.

The service man is made to lean far forward, with an odd little smile on his face. The customer is noncommittal, a skeptic. Down comes the service man's fist on the battery, as he drives home his point. There are no elements of clever, studied background, no special lighting effects, but notwithstanding this, the camera illustration has the "painted" quality, due to an emphatic method of posing of the two characters.

Remarkable it is, how getting people into the spirit of an idea, can influence a camera study.

And the importance of this is not to be under-estimated. It is really half the battle won.

We have seen factory scenes made, for industrial publications, where two prints, done by two different photographers, represented all the artistic difference in the world. By getting workers at machines into the spirit of the advertising story, an animation was secured, which is the one thing the artist making an original claims as his personal field.

One of the reasons why the camera illustrations for the very unusual series for Wellsworth Optical goods have taken on a true illustrative atmosphere and effect, is due to the character study posing, the working out of story plots which literally compel the "actors" in these pictures to pose dramatically.

The people who act in these picture stories enter into the spirit of the copy. Their faces reflect special emotions.

It would appear impossible to get "painting" atmosphere in such illustrations as have been used for Skinner's Satin—say a man and his wife examining a suit of clothes offered by the salesman in a clothing store. But the cameraman has "painted" a scene of this character.

He has accomplished it by sheer force of characterization. There is an animation in faces and poses which one rarely finds in a photograph. This is one of the "tricks." Moreover, it has been a too pronounced tendency in the past to keep to a few models of the conventionalized type. They were worn threadbare. Everybody grew to know them. They were entirely too familiar.

Nowadays, the photographer rarely uses the professional model. He goes out and finds his specific types.

They are in the spirit of the scenario which has been prepared in advance, and few of the artifices of the professional model creep out. The best models are not necessarily those who make a business of posing.

But photographers are just finding the value of this.

It is the "accidentals" in posing which count most.

"If you want the truth go to a child" is a headline which made one of the finest camera subjects of the past year. A man was bending over eagerly, while a curly headed boy whispered in his ear.

No artist could have interpreted this same subject, with pigment, in a more convincing and satisfying manner. Its charm was in its unaffectedness. It did not have the posed look.

And the wonder of the expression on the mans' face!

In business journals we find the pho-

ARTISTIC STAGING GIVES THIS PHOTOGRAPH THE APPEARANCE OF A STILL-LIFE STUDY

tographer doing some of his most valuable work—where it was needed most, because illustrations are for the most part photographic and there has been a noticeable sameness to their technique.

We find one advertiser bringing his trade-mark figure to life, via the camera.

The product in question is Rosaine Hosiery and the original advertising character was a Colonial miss, in all the quaint finery of her day. Then the thought occurred to make this character "come to life," as it were. A most attractive girl was dressed in the garb of the period and given various poses.

The trade-mark proper, shown in small size, was placed opposite the very large showing of the photographic illustration and with a decidedly interesting effect. The connection was at once obvious. But the valuable phase of the idea was in the diversity of illustrative themes it permitted, for the photographed figure could be shown in ever-changing poses.

The camera does not confine its attentions to figures. Still-life illustrations are every bit as attractive as those in which characters are featured.

An advertiser of automobiles did not believe that the camera could possibly give the same striking effects which had been secured, in the past, by artists making original studies of the car.

A photographer proved that the camera could "paint."

He took a fine model of the car at night and then turned lights upon it. When the

prints came to the advertising manager's desk he was astonished. It was the mere suggestion of the car, with here and there a high light, and here and there an emphasis. And always, the result was such as might have been achieved only by a painter, with all the freedom possible. Who can deny that some of the camera studies used by the Continental Motors Corporation are not as fine, as artistic, as highly imaginative, as anything which could be done on an inspired canvas, in oil?

Yet the theme is a mechanical one and difficult to idealize—an automobile power plant. We are willing to state that many of these camera studies of motors have been every bit as beautiful, according to artistic standards, as the most complex figure composition. And there were no backgrounds, nothing to relieve the mechanical side. There was just a motor and a plain background!

By lighting the motors wisely, by arranging for shadows and brilliant highlights, and by the addition of delicately handled retouching, the power plants were made to take on true artistic atmosphere. Steel lived!

We submit that these still-life studies represent a new note in their field. They are "pictures," where they might so easily have been cold and uninteresting catalogue illustrations.

There are four other striking examples of this, and we wish to make mention of them here.

One is a series for the Western Electric Washer. Posed in modest surroundings, with a very few accessories, a machine has been made—beautiful, artistic, atmospheric. The mellowing influence of soft shadows and of melting tones assisted. But composition ideals played an equally important part. The various ingredients of the series were always posed as a painter would arrange them. A window, its fluttering curtains, a basket of clothes, a chair —all of these fell into "painter atmosphere" posing. They were uncommercial in their relation to the thing advertised.

This brings up a second point—namely, that composition in advertising photography has much to do with the "painter" qualities of the finished print. The camera man must look through the eyes of the artist and stage his scenes in much the same mood.

The photographer-artist, responsible for the illustrations for an entire campaign for Whitman's Candy, has taken a single box of sweetmeats, and around it constructed "canvases," illustrations which might well be still-life paintings. But the greatest care has been taken, and the staging of each composition became a matter of artistic study: a sitting-room table, an art lamp, in the modern spirit, its innumerable reflected lights, a separate bon-bon dish, and a dim background, reflecting the best of taste; then comes the matter of stopping out certain details and emphasizing others.

But when the job is finished, the camera has sentimentalized, has put poetry on the plate. It has "felt" its subject.

The New Eastman School of Professional Photography

The Eastman School will be held in the Eagles Auditorium, 275 Golden Gate Avenue, San Francisco, on June 10th, 11th and 12th, 1924. You all know what the Eastman School has done for photographers in the past and this year's school is even better than its predecessors.

A feature this year is the motion picture film showing a portrait studio in full operation. The studio, where the film was made, was especially designed and built for the purpose, and as a result, the demonstrations shown in this manner are complete to the smallest detail. There is a lecture to every picture shown and there are slides to illustrate details of camera and workrooms and you can ask all the questions you like and get all technical instruction that you have had at previous schools.

Monthly Meeting of Santa Barbara Photographers

The second meeting of the Santa Barbara photographers was held at Greene's Studio on April 15th. One of the features of the evening was a talk given by Mr. McCoole of the Daily News. His subject

was "Collective Advertising." It was very interesting and was appreciated by all.

The next event was three reels of motion picture film made and produced by Mr. B. B. Roy. One reel was an advertising comedy, the second reel was devoted to home portraiture and the last reel was a comedy relating to pre-Volstead days. The advertising reel was very original and impressive.

The following members were present: Brock Higgins, C. A. Hoffman, Dwight Faulding, Geo. Steigleman, Arthur Sturtevant, Peter Nygreen, B. B. Roy, Ed Rick, P. H. Greene and C. S. McCoole. The photographers who remained away certainly missed a treat.

Ontario Society of Photographers

The Ontario Society of Photographers will hold their annual convention at the Prince George Hotel, Toronto, June 24th, 25th, and 26th, 1924. It is the belief of the executive that this 1924 convention will be one of the most instructive, enjoyable and profitable conventions ever held in Canada.

The services of Elias Goldensky of Philadelphia have been secured for one of the demonstrations and the others will be in capable hands.

If you are not a member of the above society we would urge you to become one at once as the executive committee desire your co-operation in securing the largest attendance possible.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

Improving Our Pictures

The majority of pictures made by beginners in photography, generally speaking, could be simplified and improved by trimming. It is a fact that nearly everyone, at first, doesn't like the idea of cutting down a picture. There is the feeling that it is necessary to reproduce all of the negative in the print.

It is hard to take a 3¼x5½ or a 4x5 print, examine it, and find that the real picture within the margins of that print is contained in a space, approximately, two by three inches. The picture looks so small that it goes against the grain to take the trimming knife and cut it down. However, this is necessary if the picture is to prove a success.

If the negative is masked down to the part selected and then placed in the enlarging camera and projected to a reasonable size the improvement will be so great that the amateur will feel happy that he made the picture.

Sometimes the composition will fill the entire negative, but as this happens so seldom, it is essential, that each and every print be examined for the part that contains the real picture.

Some, undoubtedly, will find it difficult to examine a small print as easily as a large one, and I would suggest that all negatives that appear to have possibilities be enlarged.

A good way to examine the print, with the purpose of selecting the best part, is by using two squares made from cardboard or stiff paper. To use, lay them down on the print, slide them back and forward, up and down, decreasing and increasing the size of opening between them until the desired part of the print is contained in the opening between the two squares. Now mark this space off with a pencil.

When the negative is used for enlarging it is a good plan to mask out the part of the negative not required, using opaque or black paper for this purpose. Paper masks are manufactured for this purpose. They are obtainable in various sizes and are ruled off in small squares, which make them very advantageous to cut. Another

ENLARGED FROM PART
OF NEGATIVE

By FRANK P. LeCOUNT
Alameda, California

plan is to use lantern slide binding strips and attach them to the edges of the negative.

By masking the negative, only the part that is wanted is projected onto the easel, and thus the chance for reflections from stray light is limited. It has another advantage, and that is, that if more enlargements have to be made from the negative later, one is sure of enlarging just the desired part, thus saving a loss of time, effort and paper.

Just a few words regarding the illustrations. One shows the entire negative and the other part of the negative. They speak for themselves and it is hardly necessary to say anything regarding them. By masking out the small boat on the right and a part from the left, the print is simplified, and, as a result, grows in strength and interest, because there are no minor details to distract the attention and cause the eye to wander.

How the Picture Was Made

When Frank P. LeCount was returning from the hills behind Sausalito this scene unfolded itself to his eyes. He saw the possibilities in it and, being an opportunist,

ENLARGED FROM ALL OF NEGATIVE

By FRANK P. LE COUNT
Alameda, California

he decided that if he wanted this picture he needs must hasten his footsteps—he ran. Arriving on the scene he opened up his camera, set the diaphragm opening and the shutter, centered the image in the finder and pressed the release. As he turned away from the scene with a sigh of satisfaction, a fellow amateur said to him: "Oh, you lucky fellow, you arrive, make the picture, and I have to wait two hours for it."

The picture was made with a 3A Kodak Special fitted with a Bausch & Lomb anastigmat lens, f:6.3. The exposure was 1/25 second at f:11. The Eastman roll film was tank developed in pyro metol. The negative was enlarged on bromide paper.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

The Photography of Small Objects

When an order necessitates taking a small object on a fairly large scale, many an everyday portrait photographer is not quite certain of the best way of setting to work. The principal points upon which attention should be concentrated are the selection of a suitable lens, the arrangement and lighting of the subject, and as far as may be, correct color-rendering. With regard to the first of these points it is desirable to use a lens of fairly long focus, and the camera should have sufficient extension to allow of a full-sized representation being made without giving rise to the unpleasing perspective, often called distortion. If an ordinary snuff-box of about three inches in length is to be photographed it is advisable to use a lens of not less than ten inches focal length, while, if the camera will allow one of fifteen or even eighteen inches to be used, so much the better. It is worth mentioning that for such work the type of lens is of no particular consequence. The ordinary portrait lens answers the purpose as well

as the most up-to-date anastigmat, always providing that the iris will allow of a sufficient reduction of aperture, which is not always the case with lenses made primarily for portraiture. It is possible to extemporize a small diaphragm of card which is placed in contact with the iris, but this wastes much time, and is best avoided if another lens is available. The small aperture which is necessary, usually f/32 and sometimes even f/64, to obtain sufficient depth, renders the use of even single lenses practicable, so that the front lens of a portrait lens or the half of a rectilinear may be used to obtain the necessary focal length. It is a good plan to provide two or three small cards with sharply-printed lettering to enable the depth of definition to be checked with some degree of certainty, particularly when the subject is of a dark color. One of the cards should be placed in contact with the front of the article and another in a line with the back. Then if both these are sharp it may be assumed that the whole subject is in good focus.

The placing of the object must be determined by its particular features. In the case of a carved or embossed box, both sides and top must be shown in one view, so that the lens must be well above it, and in order to secure vertical lines the back must be quite upright. For this purpose either a falling front or the swing back may be used. The former is preferable, as it does not necessitate a still further reduction of aperture. Although the swing would be in the direction which would favor depth in ordinary work, the angle of view is so small in such work that no advantage would be gained. In many cameras which allow of little, if any, fall of the front, this may generally be secured by turning the front board upside down in its grooves.

The lighting must be arranged with the same care as would be bestowed upon a sitter, the object being to bring all carving and moulding into relief. This often introduces a difficulty in the form of a dark shadow which interferes with the general outline. To overcome this, it is advisable to support the article upon a plate of glass raised a few inches from the table, so that the shadow falls at some distance. With many articles it is a great advantage to display them upon a sheet of glass and point the lens vertically upon them. Such things as small shells, screws, and jewelry are best treated in this way, the total absence of shadow tending to much greater distinctness.

Color-sensitive plates are as a rule indispensable, even for monochromatic subjects such as bronzes, carved ivory and dark or yellow wood, not to speak of small paintings upon box lids which are usually pronounced in their coloring. It is as well to pass over the ordinary ortho plates and adopt panchromatics entirely; the quality of image is much better and the factor for any given screen smaller, thus effecting a great saving of time in exposure.

The worker whose average exposures have been only a few seconds, will be surprised at the length of time necessary to secure a fully-exposed negative. It would take too much space to give any outline of a system for calculating exposures, but it may be interesting to know that in a good light with such a subject as a small bronze figure taken full size with a rapid panchromatic plate and a K3 screen the exposure may easily run into fifteen to thirty minutes.

It will sometimes be found advantageous to take even small objects on a reduced scale, say, one-fourth, and to enlarge to full size in the usual way. By so doing a much larger aperture may be employed and the exposure reduced by a half or three-quarters. If a hundred negatives have to be made in a museum the difference between five minutes and twenty minutes on each exposure means a good deal of money, probably the value of a week's work during the hours in which photography is possible, while the extra time expended in enlarging to a fixed scale would be negligible.

Until a good deal of experience has been gained it is advisable to take careful notes of all data connected with this class of work; much waste of time and material will be avoided if full particulars as to exposure plate, stop, color of object, scale, etc., of previous jobs are available for instant reference. B. J. of P.

Notes and Comment

Scientific Section
Annual Exhibition of the Royal Photographic Society

The Royal Photographic Society of Great Britain are holding their sixty-ninth annual exhibition in September and October of this year. This is the most representative exhibition of photographic work in the world, and the section sent by American scientific men heretofore has sufficiently demonstrated the place held by this country in applied photography. It is very desirable that American scientific photography should be equally well represented in 1924, and, in order to enable this to be done with as little difficulty as possible, I have arranged to collect and forward American work intended for the Scientific section.

This work should consist of prints showing the use of photography for scientific purposes and its application to spectroscopy, astronomy, radiography, biology, etc. Photographs should reach me not later than Saturday, June 14th. They should be mounted but not framed. There are no fees.

I should be glad if any worker who is able to send photographs will communicate with me as soon as possible so that I may arrange for the receiving and entry of the exhibit. Address

A. J. NEWTON,
Eastman Kodak Company,
Rochester, N. Y.

Exhibition of the Work of Blanding Sloan

At the California League of Fine Arts, Berkeley, California, during May there was held an exhibition of the work of Blanding Sloan, painter, etcher and theatrical designer. The exhibition, to say the least, was unusual. His versatility is remarkable and certainly makes one sit up and take notice. Mr. Sloan also uses the camera and on the walls was an exhibition of photographs made by him.

His "photopoints," drawings on photographic plates are certainly new and interesting. Mr. Sloan, while traveling, has developed this process as a substitute for etching because photographic plates and the photographer's darkroom are available almost everywhere, whereas the paraphernalia for etching is more rarely found.

Before he proceeds to the Orient, Mr. Sloan will teach the courses in painting, etching and theatrical design for the Extension Division of the University of California at Carmel-by-the-Sea during July and August this summer.

The Photographic Journal
(Official Organ)
Royal Photographic Society of Great Britain

The October issue of the above magazine will be the Exhibition Special number and will contain a large number of reproductions of prints shown in the Exhibition. It will be sent, post free, to any address in the world for one shilling and eight pence. Address, H. H. Mackloed, Secretary, Royal Photographic Society, 35 Russell Square, London, W. C. 1.

For Your Reception Room

We have just received from the Abel Publishing Company a copy of their reprint of "I am Photography." This very clever card is printed in two colors. It measures six by nine inches and is well worthy of framing. The price is $1.00, postpaid. Address, the Abel Publishing Company, 515 Caxton Building, Cleveland, Ohio.

Kalosat Lens Photographic Contest

Photographic contests are always interesting, especially so, when there are valuable cash prizes awaiting the fortunate winners. The Hanovia Lens Laboratories announce a contest open to all amateur and professional photographers with the fol-

lowing cash prizes to spur the competitors on to their very best efforts. First prize $100.00; second, $50.00; third, $25.00 and ten prizes of $5.00 each.

The contest is open from April 15th to September 15th, 1924. Photographs, to be eligible, must be made with Kalosat lenses.

For further information write to Contest Editor, Hanovia Lens Laboratories, Chestnut Street and N. J. R. R. Avenue, Newark, New Jersey.

Prize Competition

A prize competition, open to all amateurs who live within a radius of fifty miles of New York City, is announced by Charles G. Willoughby, Inc., New York. The contest closes October 31st, 1924. There are three classes for different sizes of pictures with generous cash prizes. For catalogue cards and further information write to—Prize Contest Bureau, Charles G. Willoughby, Inc., 110 West 32nd Street, New York City.

Ed. Reedy Plans a Year's Work for the P. F. A. of A.

E. M. Reedy of Minneapolis, Minn., second vice-president of the Photo Finishers' Association of America, has a short article in the book reporting the doings at the First Annual Convention of the P. F. A. of A. His subject is entitled "Looking Ahead for 1924." The talk is very much to the point and sums up the conditions covering the photo finishing field. His talk proves that he is a live wire and we are sure that he and his associates are going to do much towards improving conditions in this field.

Re:Prints

There has just reached our desk a copy of Re:Prints, issued by the Defender Photo Supply Company, Inc., Rochester, N. Y. The illustrations are by Will H. Towles of Washington, D. C.

This little folder will be a monthly visitor and if any photographer has not received his copy we should suggest that he notify the company. We also received at the same time a copy of the new addition of the book of Defender Papers. It is ready for distribution to any one who asks for it.

On Way to the Orient

Carl L. Oswald of the Ilex Optical Company, Rochester, N. Y., paid us a visit while passing through San Francisco on his way to the Orient where he is going in the interest of his company. Carl is very popular on the coast and his many friends here were glad to see him again. Many of them were at the docks to see him start on the first part of his trip on the President Wilson.

The Kern Camera

This new camera possesses a number of unique features that will very likely have an appeal for many hand camera users. It is the result of many years of experimental work carried out by the manufacturers in Switzerland. The body of the camera is made from aluminum alloy and it is fitted with an f:4.5 lens. It takes the regular film pack or plates 2½x3½ inches. The American agents are—R. W. Cramer & Co., Inc., New York.

A New Camera

A new camera has been placed on the market by the Gundlach-Manhattan Optical Co., Rochester, N. Y. It is known as the Korona Pictorial View and is made in one size only at present, namely, 3¼x4¼ inches. The camera is of light weight and has a large size lens board.

John A. Schultz, Sr.

It is with sorrow that we record the death of Mr. John A. Schultz, Sr., on Wednesday the ninth of April, 1924. Mr. Schultz was president of the Schultz Novelty & Sporting Goods Co., Inc., 122 Nassau Street, New York.

Government Insurance May Be Reclaimed

"Camera Craft" is glad to help spread the word that veterans of the late war are privileged to reclaim and continue the Government Life Insurance which protected them during their service.

We are advised there is approximately $240,000,000 of this insurance stored away on the shelves of the Treasury Department awaiting claims from San Francisco veterans.

To those of our readers who served the colors in 1917-18 we suggest that they communicate with the U. S. Veterans' Bureau at 883 Market Street for further information on this valuable right.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

California Camera Club
Yosemite Tour, June 7th to 14th, inclusive

Members and friends—We invite you to be a member of our party, on this, our 28th annual tour to Yosemite. What could be more profitable than a tour with us in a region that so abounds in scenic magnificence as to be limitless in its variety and character?

For further particulars write to Yosemite Committee, California Camera Club, 620 Commercial Building, 833 Market Street, San Francisco, California.

Second Annual Excursion to The Grand Canyon of Arizona, June 21st to 29th, inclusive

The California Camera Club extends to all members and friends a cordial invitation to accompany them on this, their second annual tour to the Grand Canyon. No matter what other great spectacles you have visited, you should see the Grand Canyon National Park of Arizona.

For further particulars write to Edw. H. Kemp, Chairman Grand Canyon Excursion Committee, California Camera Club, 833 Market Street, San Francisco, California.

Congratulations, Bill

William A. Alcock, the well known camera artist of New York and member of the Pictorial Photographers of America, has been appointed one of the judges for the Royal Photographic Society Exhibition to be held in London this year. Bill is a splendid fellow, a keen pictorialist and we congratulate him.

New Camera Club

A new club has been organized in Chicago and will be known as the Fort Dearborn Camera Club. Club quarters have been secured at 326 River Street, where complete work rooms have been installed, and equipped with everything necessary for the finishing of the negative and print.

For further particulars write to G. P. Wright, secretary, 4560 Oakenwald Ave., Chicago, Illinois.

International Photographic Association

Charles Franklin Rice

It is with profound sorrow that we announce the death of Charles Franklin Rice, Mamaroneck, N. Y., album director of the Eastern Division, number one.

Mr. Rice was editor of the Mamaroneck Paragraph for the past twenty-three years, and was one of the most prominent citizens of that region. He was a man of sterling character whose many acts of kindness and thoughtfulness endeared him to his many friends. We, of the International Photographic Association, feel our loss deeply and extend our sincere sympathy to his family.

CAMERA CRAFT

FERRY BUILDING S.F. CAL.

SAN FRANCISCO CALIFORNIA

(CALL IT GAY-VERT)

Gevaert

DEPENDABLE PHOTOGRAPHIC PRODUCTS

A fast Orthochromatic Plate is invaluable to the modern Photographic Worker, whether Amateur or Professional.

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OR

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LOWER AWAY

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By N. P. MOERDYKE
Los Angeles
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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

P. DOUGLAS ANDERSON, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI JULY, 1924 No. 7

Pictorial Photography

By Nickolas Muray, New York

Address and Demonstration Given at the 1923 P. A. of A. Convention

I do not know why they put me down as a pictorial photographer. I have nothing to do with pictorial photography, except that, perhaps I do something different from the conventional idea of pictures. I think the time is coming when most of us will have to do something different from what we have been doing for the last forty or more years, and do something new. The public will want something that is different. As Mr. Clark said this morning, children are being educated in the schools to demand better things and will not be satisfied with the things we give them. It is also true that we should not be satisfied with the things we can give them, but should try to give them better things.

We learn a good deal from the pictures of our forefathers, and also from the bad pictures they made. If you study them, I think you can learn quite a lot from the bad ones. Art is really a process of elimination. Do things which are necessary, yet include things which are just props. My way of doing pictures is probably the simplest way. It is our duty to develop ourselves more than we are doing. If ninety per cent of my customers are satisfied with the pictures, it does not mean a thing to me, because at least ninety per cent of the people do not know the difference between a good picture and a bad one. They just take it because my name is underneath it. But there are ten per cent who come to me for the reason that they know they will receive the kind of pictures they expect; they know the good pictures from the bad. This ten per cent gives me the punch to do better things than I am now doing.

I do not agree with Mr. Clark in one matter that he spoke of this morning, about copying other people. If you read the history, just as he said this morning, of great artists in painting, they were apprentices to some greater artist than they were in the beginning. If you see Holbein or Rembrandt pictures you will notice that they are very much like the masters from whom they learned to paint. But when they had served their apprenticeship and went into business for themselves, they immediately

INTERIOR

By MORTON & CO.
San Francisco, California

set about to develop their own individuality in their paintings. I should not say that I wouldn't copy Whistler,—not deliberately copying him, but I would take him as an example. Or Rosetti,—I learned a great deal from Rosetti's paintings. He is a master of the oblique, straight and horizontal lines. Those are the things which I think we should look up to and learn from. I look at Mr. MacDonald's things—very marvelous things, they are an inspiration to me and I see no reason at all why I should not try to approach the thing he is doing. That is the way we all learn,—by seeing other peoples' work. I have seen thousands and thousands of pictures, and I cannot help it if I unconsciously do things that remind me of something I have seen, God knows where, when I get a subject that awakens in me something I think will suit that particular person. You cannot apply the particular basis to all the subjects. That's where a number of photographers make a mistake,—using the same lighting, props, chair, etc., on any subject that happens to come in. That is a thing we must get away from—try to do something individual. We can do that by keeping our eyes open, by watching and by studying.

When you go in the street car, theater or the movies,—particularly in the movies and on the stage,—study every motion of the actors; they are more or less futurists. The dancers give me infinite inspiration, be-

PORTRAIT

By D. D. SPELLMAN
Detroit, Michigan

ause,—I do not know why,—I have a feeling for life. I cannot explain he thing scientifically, but I just do it the way I feel. If I see a good icture I can tell it is a good picture and can point out why it is good, ecause I have watched pictures. A picture to me is the portrait of the esh. That is why I am a photographer. There are quite a number of hotographers who are in business because they like photography; a num- er of them are in the business to make money. I am in the business ecause I like it and I want to make money. Most of us are in it for that eason.

The lighting system: Everybody has his own lighting system; and is absolutely individual. If I owned a studio I would have nobody in ne studio but the sitter and myself. Nobody helps me. I think it is a

great mistake to have one, two or three helpers in the studio, particularly when you have an absolutely strange person coming in.

Photography is really something like dentistry. If you can make it painless, it will show in your pictures, and all the props—the unnecessary props—help to destroy the effect of what you would get without these props. For instance, in the studio, I never use any reflectors. Besides the camera, probably there is one lamp or at the most two lamps. All the rest I have on the ceiling. I have found the less things that are around the subject, the more comfortable he feels. When you close the subject in with reflectors, stands, top lights and back lights, he feels uncomfortable. Try to put yourself in the subject's place and you will see how it feels. That is another point photographers seldom take into consideration,—the point of view of the subject. Just imagine yourself going into a studio, if you had never been a photographer, and having your picture taken with an assortment of things around you,—how would you feel? That is the reason why I insist on keeping in mind the elimination of the unnecessary things.

Under any condition my subjects are always supported by something which gives them an ease of mind. When they are leaning against things or standing against something they cannot move. It is good for you, too, because you know what it means if the subject acts shaky. I have a very plain table which is painted blue in the studio, that I use most of the time to let the subject sit upon or stand against. I have found it more practicable than chairs.

I want to tell you about my raised platform. I use it for dancers in the studio. This also will interest the commercial photographer, because you cannot live only on art. I have to do quite a lot of commercial things myself,—sashes and all that business. I use this platform on most all occasions that I make full figures. The reason is because this gives a feeling to the sitters that they are not on the same level with you. They are a little bit higher. It gives them more dignity. If it is a full figure, I always use a platform and always use something for them to rest against besides.

I have found it very helpful to copy. I copied Rosetti: he composes his pictures always in spaces. He fills spaces always, whether oblong or no and always frames them with two lights on the side. I have found it very easy to compose things between two lights. I have in the studio a beaver board for the third tone.

When my customers make appointments with me they always ask me what sort of a dress they should wear; and most of the time I am trying to tell them not to bring an evening dress, but bring a dress that they really like, if possible one with long sleeves. The reason for the long sleeves is the fat arms in the evening dress, which you have to slick after the proof is delivered. I do not think there is anything more ugly than exposed flesh, hence dresses with long sleeves are preferred.

Another thing I want to tell you, what I learned from looking at pic

JAPANESE TEA GARDENS
SAN FRANCISCO

By L. N. ASPINALL
Alameda, California

tures: In the beginning I made only heads, whether it was man or woman. I always made heads, because that was the easiest thing to do. Finally I became dissatisfied. It is a matter of practice, of developing a sense of composing a picture: I resort quite often to books, paintings and other photographs, to learn how to use heads. A three-quarter picture or any picture with the hands is always more interesting than just the head. If you acquired a knowledge or technique for making just heads, it should be only the first milestone in your advance. Try to pass it and get to the next one. There is always one more milestone ahead of you. Never stop and say, "I know enough. Nobody can beat me." There is no limit at all to learning. Another difficult thing to handle gracefully is a fan—particularly for photographing.

The less you monkey with your subject, the better it is!

Ninety-five per cent of all average commercial and professional photography is over-retouched, in spite of the fact that the public is satisfied with it. It is a very, very wrong thing to do—a fifty-year-old woman made twenty-five. It is these things that spoil the taste of the public. You can retouch; you've got to retouch, because the camera is a liar; I admit that. But you must not overdo it. And it is very often the case of pictures,—I have subjects coming down to the studio and showing me pictures I really could not recognize. All the similarity is killed. Why? The reason is, the operator takes the picture, and that is the end of it. The retoucher retouches it and the printer prints it. The last two have not seen the subject at all. They do not know what she looks like. The retoucher is expected to make a beautiful young face, take out lines and keep them young. You can do this and still keep the resemblance. That is one of my hard points and I am always back of that retoucher and before the proofs go out I want to see it. If it is not the way I think of it, it goes back for retouching. Nothing ever goes out unless I am absolutely sure of it looking like the subject. That is a very important thing.

There is one thing which I do when I take a picture. If it is a three-quarter picture I never look down on my subject. My perspective is my eye. If I want to get lower, I lower myself and see what it is going to do. It is a very wrong thing to look at a subject and then either lower your camera or elevate it. You should look from one point of view. I always look at my subject from the lens point of view.

Here is another thing: I always close my left eye. I have a very good reason for it; not that I cannot see with it, but the reason is this: When I look with the two eyes in my head I see both ears—when I close one eye,—I do not know from which angle, I see only one ear. You cannot see the real picture that the lens has in front of you unless you close one eye and look at it from the lens' point of view.

Another very important thing: I always use a silent shutter, so that when I take a picture of a subject they never know when it has

been taken and a much more natural expression is usually obtained. You can talk to the subject and make your exposure.

Very often I have requests from magazines where I have to make illustrations and decorations for pages to be published. Probably you have seen a few in various magazines. Another little thing is very interesting and very useful. I often work with actors and actresses, who come to me from different places. Last winter they played Romeo and Juliet in New York, at which time I photographed some of the members of the cast. I found a simple medium for making suggestions in pictures. In the play, Romeo and Juliet, the Italian style of architecture was carried out; I think you have seen some of my pictures downstairs that I made. You simply make a drawing of whatever you want on a piece of paper. I happened to think of a Catholic or Italian window. (Draws on paper on floor.) The reason I folded it in half is so that I will get the other side exactly alike. Then cut with a razor blade or scissors. Of course you can apply this to anything that suits the personality of your subject. I use a piece of parchment usually. (Hangs the improvised screen, making arch window effect). I get this straight in my negatives.

There is another thing I want to show you about this, which is very interesting. The color of this parchment paper, which you can buy in any paper store, is yellow; it shows quite dark in the filament. If you put a subject in front of it and make your exposure and put white in the back of it (of course this has to be supported), you eliminate that ugly shade that we very often get when your subject is close to the background and you get a very, very pleasing effect. This does not destroy at all the shadow on this side, which comes from the real source of light.

I have four 1000-Watt lamps on the ceiling. With these I do not have to expose a figure more than half a second.

I very seldom use white for a background. I always use a shade lighter or darker than the flesh itself. If I want to use a light background it is much more pleasing than the white background. In such cases a screen will always seem colored and darker than the background itself. I always use one of these backgrounds with very little contrast.

In the studio I have a 500-Watt lamp attached to the bottom rail of my stand, with reflector, which I use very often when I want to have a very high tone picture. I mean by that a very light picture, because my ceiling lights alone will throw shadows under the nose and under the chin and this lamp on the bottom of the lens will lighten up,—not entirely, but will leave shadows of a very gray tone, not a black shade. It is quite an important thing. We must utilize these things whether you make figures or just heads. On an 8x10 you should not use a shorter focus lens than an eighteen inch. If you do use it you will find that you have distortion on your plates. For a head, an eighteen lens is often too short. In the studio I am using a 22½-inch one. Of course, it is perfectly all right to use something much shorter on a 5x7.

A Visit to Canton

By Harrington W. Cochran

Captain, Coast Artillery Corps, U. S. Army

With Illustrations by the Author

CANTON.—Often during my life in California have I wished that some day I might be able to visit that city. Just what the fascination was—and the charm is still there—I cannot tell. Perhaps, because most of the early Chinese in California came from there. Then, too, there has been a sort of "family war" going on for several years for the possession of the city. So when an invitation came from the commander of the American South China Patrol to be his guest at Canton, I hurriedly secured a leave and left Manila for China. The day before I left I talked with Major Roland Pinger and learned the technique of handling Chinese bandits.

The trade gate to Canton is Hongkong, only thirty-six hours northwest of Manila on the new Shipping Board liners. Incidentally, if anyone who reads this contemplates a voyage to the Far East, travel on one of the Shipping Board boats. I went to Hongkong on the Admiral liner "President Madison" and the time spent aboard her will ever be a most pleasant memory.

As this story has to do with Canton, a description of Hongkong, although one of the interesting cities of China, will not be included.

We left Hongkong at 10 P. M. on a river steamer for a night trip up the Chu-kiang (Pearl River), eighty-three miles to Canton. Before we left the dock Indian guards, armed with rifles and shotguns, commenced to patrol the ship as a guard against Chinese pirates. Recently the night boat to Macao, the Portuguese colony on the southern bank of the Pearl River, was boarded by pirates and a general slaughter and robbery followed.

We arrived at Canton at 6:30 A. M. without adventure—passing the Tiger's Mouth, where the old forts are located, during the night. From the deck of the steamer I saw for the first time the "floating city," as it is called. Canton is situated on the delta of the Pearl River and canals connected with the river flow through and around it. Almost every available water space, leaving only what is required for vessels to pass, is occupied by sampans, each little sampan housing a family. Some of them are gaily painted and decorated with photographs inside—the latter principally of American motion picture stars.

The city, in area, is about one-fourth the size of San Francisco, but its population is four times as great. And it is easy to understand why Chinese always walk in single file. The streets are about six feet wide and the hurrying burden bearers going past you make it imperative that you keep in line.

(UPPER)—NO. 1
(LOWER)—NO. 2

By HARRINGTON W. COCHRAN
Manila, P. I.

There are no horses in Canton. Those who wish to ride can do so in sedan chairs or rickshaws. Loads too heavy to be carried by two men and a pole, are put in large two-wheeled carts, guided in the rear by one or two men and pulled in front by a dozen women. Everywhere one is struck by the cheapness of human life. Nothing is done by machinery if it can be done cheaper by hand. In most cases time is not a factor. Living conditions are here pictured at their lowest form. Nothing is wasted. On the river, sampan coolies fought with each other to snare the garbage that had been thrown overboard by our ship, and one woman munched with great satisfaction a grapefruit rind.

Americans enjoy visiting Canton. Although it smells to high Heaven, one soon gets used to it. Its stores and markets are of never-ending interest. In the meat markets are seen unusual foods—dried, varnished geese, sharks' fins, snakes, rats, cats, edible bird nests (made of the saliva of the sea swallow), aged eggs which have been buried for years in a manure pile—and other delicacies that delight the Chinese palate, but which usually do not appeal to us.

And how the American women love to shop there. The Cantonese like Americans, and if the purchaser is friendly and courteous much time is saved in arriving at a bargain price. The shopping district is divided into streets named after the kinds of articles sold on them, such as Pearl Street, Ivory Street, Silk Street, Jade Street, Silver Street, Gold Street, Shoe Street, Furniture Street, Junk Street, Brass Street, etc., and merchants dealing in a commodity, as a rule, stay on the street of their commodity. During the time that I was there (July, 1923), one American dollar was worth two dollars and fifteen cents, Cantonese. Beautiful, heavy silk shawls, exquisitely embroidered, could be purchased for $45.00 U. S., and ivory fans and pendants could be had for $1.50 to $2.50 U. S. A long necklace of carved ivory beads cost from $4.00 to $6.00 U. S., and heavily embroidered bedspreads and table covers could be purchased for $15.00 to $30.00. The embroidery is done by men.

The war is having its effect on Canton and everything is being done by the party in power to raise money. There were over a hundred temples, mostly Buddhists, in the city, but the large portion of these have been recently pulled down and the bricks and sites sold for the political cause. In the Temple of the Five Hundred Genii we purchased the torch of the right hand of Marco Polo, centuries old, for a dollar, and two porcelain dragons off the roof, purchased for use as fireplace guardians, cost two dollars.

The city of the dead, where the wealthy deceased are kept, sometimes for years, until a magician tells the family that the time is propitious for burying the body, is an interesting place. Here each body, in a separate room or cell, lies in state, sealed in a wooden coffin resembling the trunk of a tree, and surrounded by paper servants, food and other articles for the benefit of the spirit when it roams at night. One

(LEFT)—NO. 3
(RIGHT)—NO. 4

By HARRINGTON W. COCHRAN
Manila, P. I.

coffin had a complete opium smoking outfit beside it and another coffin, a small one, was surrounded by a rocking horse, toy airplanes, tin soldiers and wooden play blocks.

I will not attempt to discuss the political situation or what the war is all about as it is difficult for foreigners to understand and, if the truth were known, very few of the Chinese have any definite ideas as to the reasons except that it is useless warfare. The city is full of Yunnan troops, mercenaries, who are of upland stock and, although dressed as disreputably as Mexican insurrectos, are considered good fighters. In addition to these soldiers the city has placed several guards at each corner, behind an angle of boiler plate, who have been recruited from among the young merchants of the city. These are armed with German pistols, and they walk around the streets with their pistols drawn, fingering the triggers as a warning that no looting will be tolerated.

The American Canton Christian College, across the river from Canton, is an excellent institution which has done more, perhaps, to gain the respect of the Chinese than any other agency. It is non-sectarian and during the political upheavals in the city shelters many of the Christian Chinese.

The photographs: No. 1 is a view of the Bund, on the Shameen (Sha-mien), an island occupied by the foreign community. Although four-fifths of it is controlled by the British and one-fifth by the French, other nationalities, except German and Chinese, are permitted to lease

space on it. The American consulate and several prominent American firms have buildings. No Chinese are allowed on the island except on business. Iron gates control the bridges which lead to the island from the city. Foreign gunboats usually anchor off Shameen. The river at this point is about as wide as Carquinez Straits at the Southern Pacific ferry. The day was cloudy so the exposure was 1/25th second at f:8.

No. 2: The 100-foot canal that separates the Shameen from the city. The photograph was taken from the English bridge. The curve of the French bridge can just be seen, beyond which the canal turns to the right and enters the river. The houses on the left, the city side, are being torn down by the municipal authorities to make room for a wide street. Canton was originally enclosed by walls, but these have been torn down and wide straight streets have been run through the city, giving an opportunity for the use of American automobiles that must have been second-hand when they arrived. The present mayor of the city is Sun Fo, a graduate of the University of California, and son of Dr. Sun Yat-Sen. The picture was taken at 1 P. M., sun exposure 1/25th second at f:11.

No. 3: Silk Street. This street is popular with American tourists, for here can be purchased the famous Manila silk shawls that sell in the United States for ten times their cost here. The name "Manila" comes from the time when the Spaniards controlled the Phillippines. The Spanish ladies particularly favored a large white silk shawl, about five feet square and eighteen inches of silk fringe, with large red flowers, intermixed with smaller flowers of other colors. The time of exposure was 1/5th second at f:6.3.

No. 4: Another typical street scene. An advertising man would be bewildered at the number and gaudiness of the merchants' banners, and it is obvious that the Chinese believe in signs. It is difficult to stop "motion" as the streets are shaded by screens extending across from the roofs of the houses. Underneath the streets run small canals which drain the city. There is no sewer system. The camera was set at 1/5th and f:6.3.

No. 5: A corner of the Temple of Five Hundred Genii. There were a number of Chinese loitering along the opposite wall, including several beggars, but as soon as they saw the camera they vanished around the corner. The Chinese share the belief of other primitive peoples that the camera possesses an evil eye. The photograph was taken on a hazy day at f:8 and 1/25th.

No. 6: A corner of the interior of the Temple of Five Hundred Genii, surreptitiously taken from a point near the altar or joss. Some of the old "wise men" can be seen. Notice the ears on the gods. The old Chinese evidently believed that to pull one's ear lobe meant to depict deep thought, an act that would hardly register in modern movies. It is of interest that the "wise man" at the left of the altar (not in the photo-

(UPPER)—NOS. 5 & 6
(LOWER)—NOS. 7 & 8

By HARRINGTON W. COCHRAN
Manila, P. I.

graph) is dressed in medieval costume and is reputed to be Marco Polo, the Venetian who took service under the great Khan Kublai about 1275. As it was too dark near the altar for a snap, the priest having returned, the writer was unable to photograph Marco's likeness. This picture was taken at f:6.3 exposure 1 second.

No. 7: The leaning pagoda on Honam Island, near Canton. This photograph was taken while a typhoon was visiting Canton, during a lull in the rain, and the tripod had to be held by the writer to prevent the camera from being blown over. The pagodas are the oldest buildings in China, but are not of great antiquity, as they owe their origin to the Buddhist religion. All pagodas are built of an odd number of stories (i. e., 5, 7, 9, 11 or 13 stories). This one is nine stories high. Taken at 4 P. M., f:8 exposure 1 second.

(UPPER)—NOS. 9 & 10
(LOWER)—NOS. 11 & 12

By HARRINGTON W. COCHRAN
Manila, P. I.

No. 8: Looking upward in the leaning pagoda. To view this photograph hold the magazine over you and look upward. While this pagoda has but nine stories on the outside, it is fifteen stories high on the inside. The walls are about twenty feet in thickness at the base. Pagodas were originally built to house sacred relics. Small bells were usually suspended from the cornices on the outside and a large bell hung from the heavy cross beam under the roof. Nearby is a small temple inhabited by the Buddhist priest of the pagoda. There are about two thousand pagodas in China, but of those in South China most of them have been abandoned, presumably on account of military operations, as the tall towers make excellent points from which to observe the surrounding country and native soldiery are no respectors of religion. The photograph was taken by laying the camera on its back on the old altar. Taken at 4:30 P. M., focus fifty feet, stop f:16, time 15 seconds.

No. 9: A wayside temple. One finds similar temples by walking in any direction near Canton for fifteen minutes. Near this particular temple, however, there dwells a real robber baron, who gathers a tax from all junks that pass up or down the river on the plea that he will keep the

pirates down and prevent anyone else in his section from collecting a tax. The photograph was taken at 5 P. M., f:8, 1/5th second.

No. 10: A river junk. Note the large eye in the bow so that the spirit of the ship can see where she is going. The sides of the vessel and after end of the high stern are elaborately carved and painted. Amidships and on the stern she carries old cast-iron cannon, loaded with rocks, scrap iron and rusty nails for the benefit of pirates. In fact, all vessels going up the river from Canton, steamers as well as junks, carry modern and ancient cannon and have the wheel houses protected with boiler iron. It's a merry life that they lead in South China. The photograph was taken from a launch, dull day, f:8, 1/50th of a second.

No. 11: Old Chinese gunboats, with ram bows, veterans of many a canonade, laid up in the river at Dr. Sun's navy yard. This photograph was also taken from a launch, as in No. 10.

No. 12: Dubbed the "Yankee Jam Factory" by Americans and foreigners in Canton, the U. S. gunboat "Helena" is the largest and finest war vessel stationed on the river. Designed for river work, her stack was made unusually high in order to get a good draught through the furnaces, and though it may look like a factory chimney, yet it is efficient. Taken from a launch, f:8, 1/50th second.

The camera: The camera with which these photographs were made is a No. 4 Kodak, purchased in 1907. Two years ago I replaced the old shutter with an Optimo and the old rapid rectilinear lens with a Velostigmat Series IV, both purchased from the Wollensack Optical Company, and have never regretted the change. Although I have been using a 3¼x4¼ Revolving Back Auto Graflex, with a Tessar 1C, supplemented by a protar Series VIIa, I believe that, when traveling, I prefer the old No. 4 Kodak. It is much easier to carry if one has to walk, or to pack in a suitcase, and can get pictures equally as satisfying, if there is time, as I can with the other. Also, I find that it is sometimes difficult to get good pictures among natives with the Graflex as it attracts too much attention.

I usually carry a No. 1 Special Kodak, fitted with an Optimo shutter and a Tessar 1C, and, although only 2¼x3¼, I have been able to get negatives that, when enlarged, could hardly be told from contact prints. It has been especially useful where it is desired to get a picture without attracting attention. I would have used it on this trip, except that it is at the Eastman Kodak Company in Rochester being repaired. Recently, when among the Ifugaos in Northern Luzon, I gave it to a native woman to hold and when she saw what it was, she dropped it on a rock and ran yelling through the village.

In the Philippines the length of time for proper exposure is about twice that required in California. Although there is apparently strong sunlight, the humidity diffuses the light and fools many an old photographer on first experience.

Some Old and New Kinks in Squeegeeing

By J. G. Pratt

With Illustrations by the Author

Although squeegeeing prints to give them the ultra gloss is one of the simplest items in the work of the experienced operator, nevertheless, it is a tedious and laborious undertaking for those who are not thoroughly conversant with the process involved.

A few years ago when inferior quality paper was flooding the market it was practically impossible to secure anything like a perfect squeegee, and most photographers discontinued the practice on that account. But those days are past, and the glossy paper now to be had is as good, if not superior to that available before the war.

Every photographer seems to have his own pet method of making glossy prints, and generally believes his is the best and only way. Some insist on applying the prints to the ferrotype plates under water; some laboriously rub the boards down with paraffin and gasoline before each operation, while others never clean the boards at all; some roll and roll and roll, and others seem to get fair contact with nothing but the scraping of a rubber squeegee. In any event, they all work toward the same end, and, after a fashion, secure results.

The writer has spent considerable time in trying out the systems in vogue with other photographers, and has finally adopted the following method, which will be described in detail in the hope that it may be of some assistance to those having trouble with this phase of photography.

In order to start right, secure some new ferrotype plates, say of the 10x14 size, which should be about thirty or forty cents apiece. Most text books say to polish them down with a preparation of gasoline and paraffin. This may have been proper a few years ago when our gasoline was of a higher standard, but nowadays it already contains a sufficient amount of grease to make the paraffin unnecessary. Merely moisten a tuft of cotton or a small piece of soft flannel with the gasoline, rub this all over the plate to take off all dirt and grease, and then polish with another large piece of flannel until the surface glistens. Prepare all the boards in this manner to start with and although they may be used daily, they should require no further treatment for months other than putting them under the tap and rubbing over the surface with a wad of absorbent cotton just before putting on the prints. It is an excellent plan also to pass each print under the tap before applying it to the board in order to wash off any sediment.

When the board has been filled it should be tilted to drain off the surplus water, and if the prints have a tendency to slide off they can be held in place with the thumbs.

By J. G. PRATT

The table should be covered with a piece of plate glass, or slate, or a marble slab, or any hard substance which is absolutely smooth and flat, and this should be covered with a large blotter to keep everything from getting wet. Place a blotter over the prints and roll lightly to take off the surplus moisture at the same time holding the blotter firmly to keep the prints from skidding. If the prints are 5x7 or larger, it is a good plan to use a rubber squeegee in order to prevent air bubbles from remaining under the print. In doing this, hold the print firmly and lightly, scrape the surface, always starting from the middle of the print. Now use a dry blotter and roll the prints down at least twice, up and down and across ways, in order to secure perfect contact. In doing this the slight pressure required should be exerted vertically or else the prints are liable to slide.

If one is doing commercial work in any volume, much time and patience can be saved by employing an ordinary wash wringer for rolling the prints, as seen in the illustration. These wringers cost but five or six dollars and enable one to squeegee between eighty and a hundred 5x7 prints in an hour. The rollers should be long enough to accommodate the 10x14 plates, and before the operation they should be adjusted with a turn or two of the screw to give a slight pressure. When not in use the pressure should be released to prevent the rollers from becoming flattened.

If the prints come clear to the edge of the ferrotype plates buckling is almost sure to occur, and this can be obviated, if four 5x7 prints are to be placed on each board, by trimming the paper an eighth of an inch on one end and a side before printing. Sometimes in spite of everything a print will buckle, and this can always be taken care of by smoothing it out and then turning the board over, and rolling it through with the prints resting on the bottom roller. Ordinarily twice through the wringer should be sufficient to give perfect contact.

Set the boards up in a dry place, preferably where there is a draft, and they should "pop" or peel off in from thirty minutes to an hour. Most

works on photography advise against the employment of heat to hasten the drying process, although the writer has found that this is not only not injurious, but decidedly an advantage, at least in the spring and early summer when the air is saturated with moisture, as otherwise the drying will take an exceedingly long time, and now and then one will stick so tight it will have to be scraped or soaked off. If a small heater, such as a one-burner gas stove, is used, a rack with grooves can be made to hold as many plates as desirable, and this can be suspended two or three feet above the stove, where the prints should pop off in about twenty minutes. The rack should allow a space of from one-half to three-quarters of an inch between the plates.

Lastly, when a print finally does show a tendency to stick, do not use the board again until it has been cleaned with water and polished down with gasoline.

Squeegeed prints have a decided inclination to curl, and difficulty is sometimes encountered in flattening them out for quick delivery. Also the photographer often squeegees a large batch of prints just before quitting for the day, and as it takes but a short time for them to pop off, they become hardened in their curled condition, with the result that it is almost impossible to trim them. All this difficulty can be eliminated by rolling the prints up as indicated in the photograph. The roll is merely a long strip of paper, or rather many strips pasted together. The prints are placed face down so that they are bent against the curl. This takes out all kinks and gives them a slight curve in the opposite direction, and by the time they are trimmed they lay perfectly flat. Those just taken off the ferrotype plates will straighten out in a few minutes, while those which have dried over night can be taken care of in from half to three-quarters of an hour.

FORTHCOMING EXHIBITIONS, 1924

October 17th to November 23rd, 1924—San Francisco International Salon. Last day for receiving prints, September 29th, 1924. Particulars from H. A. Hussey, Secretary, 64 Pine Street, San Francisco, California.

October 4th to November 14th, 1924—The Eighth International Salon of Photography under the auspices of the Camera Pictorialists of Los Angeles. Last day for receiving prints, September 15th, 1924. Particulars from John C. Stick, Director, 811 Washington Building, Los Angeles, California.

September 15th to October 25th, 1924—The 69th Annual Exhibition of the Royal Photographic Society of Great Britain. Last day for receiving prints, August 15th, 1924. Particulars from H. H. Mackloed, Secretary, 35 Russell Square, London, W. C. 1

August 23rd to September 6th, 1924—The 33rd Annual Toronto Salon of Photography. Last day for receiving prints, August 1st, 1924. Particulars from J. H. Mackay, Secretary Salon Committee, The Toronto Camera Club, 2 Gould Street, Toronto Canada.

September 8th to 13th (inclusive), 1924—Fourth Annual International Exhibition of Pictorial Photography, New Westminster, B. C. Canada. Last day for receiving prints, August 31st, 1924. Particulars from D. E. MacKenzie, Exhibition Secretary, Hart Block, New Westminster, B. C. Canada.

How I Made An Enlarging Box for My Camera

By Harry B. Bradford

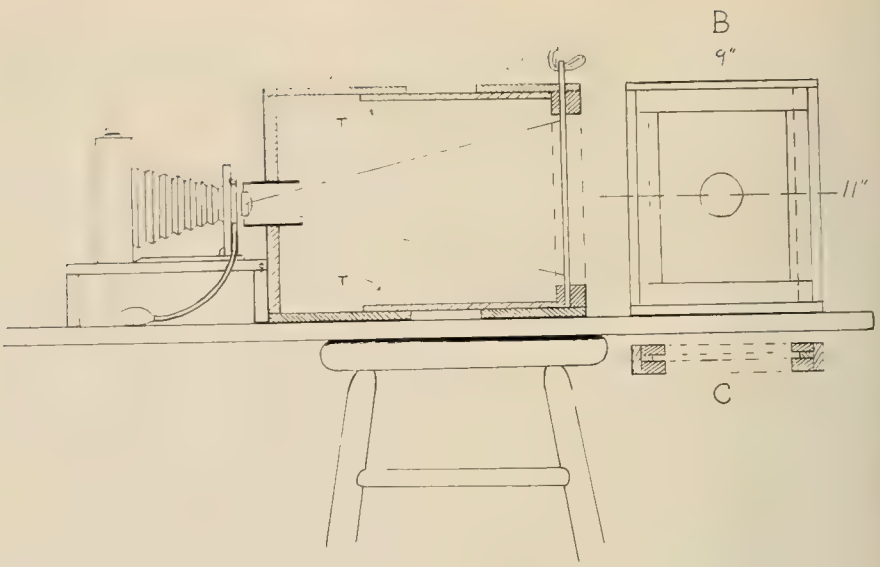
With Illustrations by the Author

Few boys progress far in photography before they become dissatisfied with the small pictures usually produced by the cameras which they first purchased. A camera which will take a large picture is quite expensive, to say nothing of the plates, paper and other necessaries required for the finished pictures. Then, too, we don't care to take all our pictures as large as 6x8 inches—we want enlargements of only our best ones. Taking these things into consideration, I think many boys, who are fond of picture-making will appreciate a good enlarging outfit, and I am sure that any one who has tried to darken a whole room for this purpose will enjoy the luxury of this enlarging box. Instead of darkening a room, as is usually done, only the small space required to be dark is enclosed in this box.

While enlargements may be made with almost any camera, one with a bellows, and an easily removable back, is preferable. I will describe the box I have made to suit my "Pony Premo No. 4" camera, square back, and of 4x5 size. As exact dimensions must vary according to the kind of camera one uses, and the size of enlargements desired, I will only give a few, which describe my particular box and its fittings.

Fig. 1 shows the whole scheme in a nutshell. The camera, on a stand made for it, has its lens tube or "hood" stuck into the mailing tube projecting from the front board of the enlarging box. The back of the camera, which holds the ground glass and plate holder, having been removed, a negative holder, holding a negative, is put in its place.

This outfit is placed upon a smooth board or table, and placed up close to a window upon which the sun shines directly. A piece of tissue paper (onion skin) about 12x16 inches, is attached to the window pane (with passe partout binding strips) directly back of the camera, which is placed six inches or less from the window glass. This paper is used to diffuse the strong sunlight before it comes through the negative. A sheet of bromide, or other suitable paper, is placed in one of the paper holders (Fig. 8) while in the dark room, just as a plate is loaded into a plate holder. This paper holder is then placed in its grooves in the back of the enlarging box, for exposure to the image reflected through the negative and lens of the camera. After exposure, the slide is pushed down to cover the paper, when the holder is removed and taken to the dark room for development. During focusing on the ground glass (Fig. 7) a large opaque cloth is spread over the whole box and camera, except the back of the camera. Some weight is placed on the front sec-



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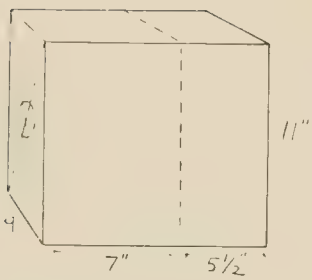

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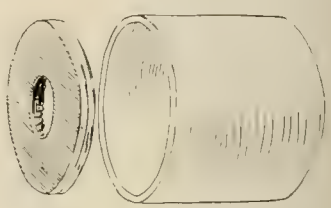


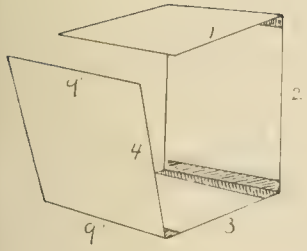
3

By HARRY B. BRADFORD

tion of the enlarging box, at No. 7 (which shows the length of front section), and the back part (No. 5) is moved to or from the lens, for focusing on the ground glass. This operation is accomplished by aid of the telescoping sliding inner sides, shown at "T" "T." An end view of box is shown at "B," and a section of this below at "C," showing grooves for the ground glass frame and paper holders. Fig. 5 gives a perspective view of the outfit with holder and ground glass removed.

The camera, being on the outside of the box, is easily adjusted as to bellows length and diaphgram during focusing.

Now for details as to its making. Select the best box (from your grocer) you can find, of about the dimensions given in Fig. 2, and if it has no top or cover—make one, whether for its top, side or front, as it must be all boarded up. Now mark around each side of this box, as indicated by dotted line in Fig. 2, and cut it in two as accurately as possible, sandpapering the edges afterwards. Have these two parts in about the proportions indicated, the front being longer.



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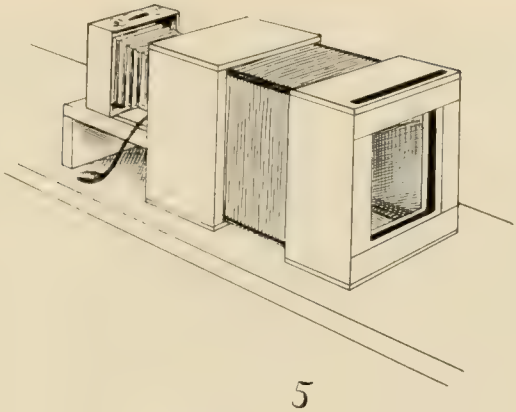

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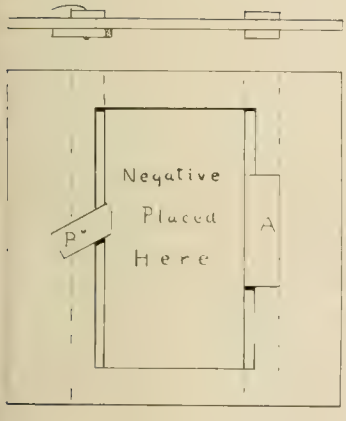

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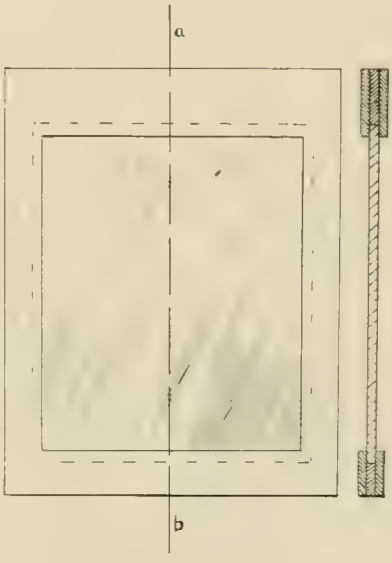


7

By HARRY B. BRADFORD

The next article needed is a stout piece of mailing tube, 2½ or 2¾ nches in outside diameter. Cut a cylinder from this about 3½ inches ong, then cut two circular discs to fit in one end of it. The best material or other needed parts, as well as these discs, is "pulp board." This omes in large sheets about 24x48 inches, and the No. 20, which should e used, is ⅛ inch in thickness. This is much easier to work with than ood, and will not warp or shrink. It may be had from any large dealer n paper. After cutting the discs, glue them together, and when dry cut hole in the middle large enough to admit the lens hood of your camera, aking a loose fit.

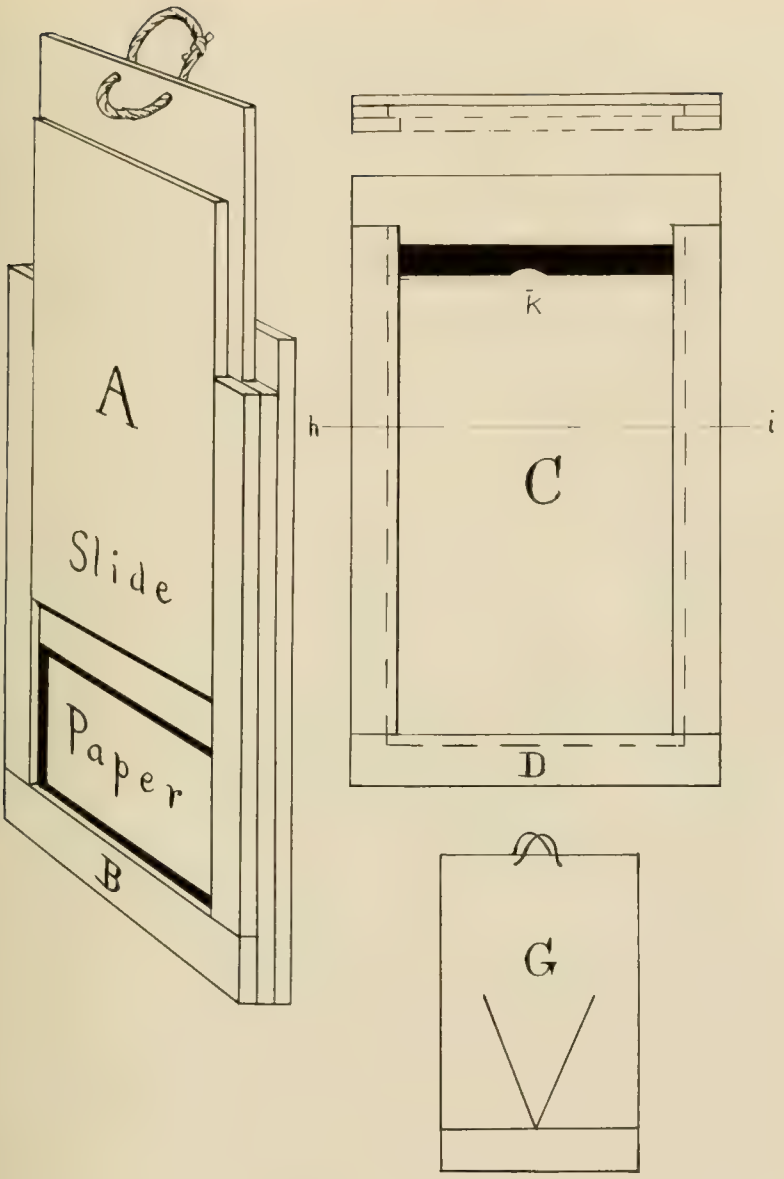
Several sheets of black carbon paper, such as photograph albums are ade from, should be next provided. Paste a circular piece of this paper

over the face of the disc, cutting a small hole in the center and snipping its edges to form teeth, which are to be pushed back through the hole, forming a surface which will hold the camera lens firmly. Paste the edges of disc and fit it into the end of mailing tube, black paper facing outward, as shown in Fig. 3. (Higgins' "Drawing Board" paste is best to use for all pulp board.) When disc is dry, paint all within mailing tube a dead black with India ink. Now cut a circular hole in the front of your box, into which the mail tube will fit snugly (see Fig. 2). Push the tube half way through this hole, then give your attention to the back part of your box. Cut an opening in this 6½x8½ inches, or build it in as shown in Fig. 1, B. Next, either line the whole interior of the box with your black carbon paper, pasting it in, or stain the interior black.

A sheet of double-faced, corrugated board, which comes one yard square, is best for the sliding telescopic part, although pulp board might do. Before bending this, cut outer edges with a knife, using a strip 9 inches in width and long enough when formed into a square to fit into the rear section of your box. Join outer edges, where boards come together, with passe partout, also bind all other outside edges or corners, except those numbered 1, 2, 3 and 4, Fig. 4. Along the inner angles of these boards paste strips of black carbon paper as shown in Fig. 4. When this slide is done, and dry, push it into the rear box part, allowing only six inches to project outside, evenly all around. Fasten this firmly in place by several tacks, an inch or so from its rear edge, in all four sides. (The edges unbound with passe partout (1, 2, 3, 4) go inside the box.) When this is done, see if it will fit well and slide smoothly into the front section of your box, as shown in Fig. 5.

Cut out a negative holder next, from pulp board, the outer part of which must fit the back of your camera exactly, when its own back is removed. In the center of this cut an opening to fit the size negatives you want to enlarge. This done, paste a pulp board strip along each side of this opening, at the back, having them project inwardly ⅛ of an inch. On the front side, paste a block ("A," Fig. 6), at the right, and a button "B" at the left, to fasten in the negative. Fig. 6, top view shows how button is fastened on with a bent pin. Paint all front face of this with India ink. The black side must face in the camera.

Next get a piece of ground glass 8x9 inches, which is half an inch larger each way than the largest pictures this size box will make. Cut a pulp board frame for this glass wide enough to fit the inner space of rear section of your enlarging box, and long enough to project two inches above the top of the box. Then cut two more frames, having the same dimensions on the outside, but the inner openings 6½x8½ inches—the exact size of your largest pictures. Paste one of these frames on each side of the first one holding the ground glass, and an important part is done. (See plan and sectional view of this in Fig. 7.) The thickness of this will be three-eighths of an inch, as it is three pulp board thicknesses



8

By HARRY B. BRADFORD

The paper holders must be the same thickness, and it is well to have several, for obvious reasons. To make them, cut a piece of pulp board 10½ inches in length, and as wide as the outside width of the ground glass frame, then cut a piece of cardboard the exact size of your pictures—3½x8½ inches—place it one inch from the bottom of your board, leaving

equal margin on each side. Mark around all sides of it, and then cut strips to bind this pencil line you have made at sides and bottom. Extend side strips 1½ inches above upper pencil line, and fit them well at bottom crosspiece. (All inner edges should be sandpapered smooth before pasting in.) Next cut three more strips, wide enough to overlap the first ones one-eighth of an inch and paste them over the first ones so they overlap, inwardly, one-eighth of an inch at sides and bottom. Two black carbon paper strips are pasted across near the top, the under one one-eighth and the upper one one-sixteenth inch from the pencil line bounding the top edge where the paper will come. A nick in middle of lower strip allows the paper to be taken out easily. These strips hold the paper in place when slide is drawn up. (Fig. 8 shows perspective view of slide, partly open, "A," front view with slide off, and top "C" and "G" shows view of back of slide.)

Now cut a slide to fit the grooves of the paper holder "B," making it long enough to extend two inches above its top. Sandpaper and bevel its edges so it will run smoothly in the grooves. This slide fits the first strips pasted on; now make another piece to fit the upper strips, and paste it on the slide so it will come about one inch from the bottom and half more from the top. Put a strong string or cord in the top to draw it up by. Mark a point, "k," shown in plan "C," one-quarter inch below the cross line, and put in slide and push it down till its bottom edge comes to this mark, then turn, while holding it there, and draw a line across the back along top edge of back of holder. Draw a large "V" on this line, as shown in "G," Fig. 8. When making the exposure, the appearance of this V on the back indicates how far the slide must be drawn to cover the top of the paper one-quarter of an inch, and hold its upper edge. In using this holder, which is inserted in box after correct focus has been made on the ground glass, it is only drawn till this "V" line appears. This method serves two purposes—it holds the top of the paper in place, and blocks the passage from light which would enter if the slide were drawn entirely out. A small pulp board wedge at back of holder, when slide is drawn for exposure, holds slide in place during exposure.

Now that the ground glass, frame, and the holder are finished, a slit to receive them is cut at the top and back part of the box, as shown by black line in Fig. 5. A piece or strip may be taken off clear across the back, if desired, instead of copying illustration. Next fit side and bottom grooves of wood, rounding the upper near edge of the lower groove. Fig. 1, "C," shows section of these grooves, when slide is not quite as wide as width of box. The bottom and side edges of both ground glass frame and paper holder should be well rounded by using sandpaper. If well done, the three layers will appear as one solid piece. The small camera stand is securely attached to front board of box with hooks and screw eyes, shown in Fig. 1. If any light comes through around tube in front board, tie a soft black cloth around mail tube on the outside of box.

Slow papers as well as fast ones may be used in this box with perfect success. If your camera bellows is too short, slip a "portrait" cap lens on the lens hood of your camera. This will shorten the focus so images will appear sharply on the ground glass.

The camera, its stand and the paper holders may all be packed inside the enlarging box when not in use.

II. The Eye and the Camera

By H. D'Arcy Power, M. D.

(Continued from June Issue)

In accepting a view we are never conscious of all the elements that are thrown upon the retina. No man who looks at a landscape sees more than a limited number of its parts and, so it comes about that even when attention is aroused and we are looking at things, we still perceive only those that have attracted us. At the end of a given time, say a minute's view of a given scene, we have only seen definitely (and could therefore only definitely remember or describe or reproduce) a portion of the whole. And these things that we have paid attention to are all that make up our future concept of that scene, and are perhaps all the stronger because the mind is not choked with details which would be unimportant to us under the circumstances. Furthermore, these items constituting our picture will not be equally grasped and would therefore not affect us in direct proportion to the physical elements of the light which came from them but rather their image is vivid in proportion to their importance to our minds.

Note how totally different this is to the camera picture, where each item of the whole is strictly, physically, the equivalent of the light which produced it, in which everything has its proportionate place, nothing is stronger, nothing weaker, by reason of any human importance it may possess; whereas the human picture is but a series of memories of things that have passed under attention, consecutively received, and in one sense inaccurately written down.

Lastly, in regard to the things themselves, there is this difference: No man, let him look so long he will through the most powerful telescopes, gains anything in vision or is able to perceive any new star. But the photographic plate, when similarly exposed to the sky, gathers slowly but surely the light from distant suns that never could have been revealed to human knowledge in any other way. Again, under conditions of haze even of the slightest character, the power of the eye to see different objects will ultimately fail; but the camera turned on distant points, if provided with plates sensitive to the infra red rays, will record villages and houses

and objects beyond human vision. Here again the camera and the eye see differently.

Now let us turn not merely to form, which is the measure of the quantity and contrasts of light, but to color, which characterises its quality; and the first thing we perceive is that the eye is variable in its relation to it. It may see color too brilliantly, then under the very same conditions, too dully. When the eye first pays attention to a given color it grows in intensity, reaches a maximum and then slowly grows duller as the eye tires. Lenses and photographic plates do not tire. It may be interesting to give the reader proof of this.

If a brightly colored disc, say a patch of bright red on a black background, be placed in the center of the stereoscope and looked at, the prisms will of course give a double image. If the eye observes this without special attention, they appear of the same size and brilliancy. But let the experimenter concentrate his attention on the image seen by the right eye, and it will immediately grow brighter and more distinct, notwithstanding that the left image is still clearly visible. Let him now transfer his attention to the left eye, and matters are at once reversed. As we are dealing in reality with only one disc of color, variation in appearance has clearly no relation to facts but to the varying reaction of the brain.

Again, the eye is affected by the quantity of color seen at a given time. Thus a field of Eschscholtzias (California poppies) in sunshine appears more brilliantly yellow than any single one of the flowers viewed by itself. But here, too, variability shows itself, for after a little while the brilliance will subside. Another example of the same thing is seen in looking at the color of a small pool of water on the seashore as compared to the water in the ocean. Both will reflect the light of the blue sky above, but the greater mass of the ocean will give heightened intensity.

Again, juxtaposition of colors, which in the case of the camera and plate is entirely without effect, gives the reaction, which we all so well know, of great enhancement; thus the blue of the sky in the vicinity of the red hills appears much deeper if the hills be first observed, and the red of the hills appears much brighter if the sky be first seen. Color plates of such objects, however, do not show this increase at the point of contact. This illusion is entirely due to physiological changes in the brain cells, and is innate in man but not in nature.

All these differences are physiological. But there are other modifications of vision which are still more remote from reality, if reality is to be confined to the physical constitution of things. The most fundamental thing in man's observational power is the unexplained faculty of attention, whereby is acquired intensity of perception at a single point, at the expense of loss of it elsewhere. By it we see closely, hear accurately, correctly, perform our mechanical tasks. It is the basis of all learning.

Attention alters all things upon which it fixes, and in consequence the greater the attention, the more vivid the perception, the longer will it stay in memory; and in the case of the visual image, the more will the things to

MEMORIAL MUSEUM, GOLDEN GATE PARK
SAN FRANCISCO

By H. S. LAWTON
San Francisco, California

which attention has been given dominate the whole picture. On the other hand, this very act of attention is itself controlled by many factors that have no direct relation to vision at all. We give attention in accordance with our likes, and we are forced to give it equally by our dislikes. Thus in a given field of observation we may find those things which are pleasant to us, but we perhaps are quite indifferent to the majority of our fellows, and that particular scene if painted will be individualized in just this manner.

It is this which makes the paintings of different artists characteristic. Is it to be doubted but that Rubens in his depicting of strong features and powerful action, and in his interest in a particular type of red, was not moved to see these things wherever they might be; or that a lover of soft sombre blues and browns such as Cazin, does not find these relations in scenes where other men would overlook them? Nor is it always the things we love that are forced upon us—it may be the horrible or grotesque; and men with these aversions may discover them under ordinary conditions, and so their works exhibit a morbidity which we know is not unusual, both in painting and poetry.

Another influence which determines attention is racial character and past training. We pay attention to very different things in advanced life

as compared with that of childhood. The northern and southern temperaments see the same nature with other eyes and reflect it in their creations. Sickness lowers the power of attention, and the world seen under its influence passes to the uniform and the sombre. I believe even the periods of the day affect us in a somewhat similar though milder manner, and sunset and sunrise differ not so much in the actual facts of nature as in the altered condition of the organism beholding them.

So we come to the final conclusion, that it is an impossible thing to compare the recorded photographic image with the human record of the same scene. The one is the fixed embodiment of certain physical facts at that moment characterizing external nature, uninfluenced by any variability or personal equation in the photographic apparatus; the other is a record of many selected observations influenced by both physiological and psychological factors that make all its elements unequal in distribution, value and color.

The human concept of a given scene is nothing but the transcript of **just so much of it** as may have forced itself upon the observer's attention. But please let it be realized that to man this is the real world—though three-fourths of the possible visual elements be left out, they are for the man at the time unimportant; and were it possible, which is obviously not the case, for them all to have entered into consciousness, the resulting impression would be but a blurred image, the product of confusion, just exactly as when in mixing too many colors the final result is but mud.

If the truths here presented were better held in mind, the greater part of the foolish controversy concerning the art possibilities of photography would cease.

Making Panoramic Pictures with a View Camera

By O. L. James

With Illustrations by the Author

The owner of a 5x7 view or smaller camera may often want to make panoramic pictures with his outfit. A very simple and interesting way of doing this is by mosaicing two or more pictures together.

A tripod to place the camera on is a necessity. The first and most important thing to remember is, that the lens must be in the same vertical plane as the tripod screw when making the exposures; otherwise the prints will not match well.

When all is ready the first exposure is made and then the camera is swung to right or left to include the desired view. When the camera is set up and focused, do not move the tripod or alter the focus until all the exposures have been made. It is best to include a little of the view

By O. L. JAMES

in the second exposure that was in the first and a little of the second in the third, and so on. This allows more leeway in matching and is easily trimmed off the print.

Although it is not necessary, yet if one wishes to obtain the most uniform results the negatives should be tank developed. The prints should be the same tone or else they will not match properly. Sometimes it will be found necessary to print the negatives on various contrasts of paper to obtain the desired result. The first time I heard the word mosaic used in conjunction with this process it made it seem very difficult to me, but I later found out on trial that it really was a simple operation. The prints are placed side by side with the edge of one print overlapping the edge of the next print. The top print is then trimmed until the two register. Next the edge of the same print is thinned down to the emulsion of the paper with a piece of fine sandpaper. This part of the operation has to be done very carefully if the print is to be a success. The prints are now ready for joining together. The whole picture is next trimmed and a piece of adhesive or lantern slide tape is placed on the back of the print over the overlap to make it firm.

Bird's-eye views of towns and landscapes are good subjects and when several are joined together correctly the results are equal to panoramic pictures made from one negative.

This article is not written with the idea that it is something new, as it is practiced by the majority of commercial photographers. Some use it to get greater angle of view in interiors, others use it when making views of buildings, etc.

The reproduction is made from two 5x7 prints trimmed down and matched together on the tree. The 5x7 view camera was fitted with a R. R. lens. The exposure, about noon, was a ½-second at stop f:8.

El Lenjero Viejo — How the Picture Was Made

By N. P. Moerdyke

The above picture was made in a mining camp near Globe, Arizona, in 1920. The fuel supply there consisted of wood cut from the wooded hills that surrounded the camp, and this aged Mexican cut remarkable quantities each day and packed them into camp on the backs of burros. He knocked off fairly early each afternoon and busied himself about his shack on the outskirts of the camp, where I could see him from the windows of the executive offices of a mining company operating there.

Ostensibly engaged in my professional duties, I had a camera handy, and an irresistible desire to slip out and try it on the old man, for he looked as if he had a picture or so in his poke. When he seated himself in a likely posture, in a good light, with his accustomed surroundings, and with his two grandchildren playing about him, on this particular afternoon I decided that business was interfering with pleasure and, besides, I needed that picture. So I wandered over. The problem was to catch all three of them off guard.

My conversational experience in Spanish being extremely limited, I was compelled to resort to a fraudulent subterfuge. I ostentatiously snapped the shutter two or three times with the slide remaining in the plate holder, left the camera standing on the tripod, sneaked the slide out, told them I had all the pictures I wanted, and then, when they relaxed and dropped their stiff and unnatural poses, promptly shot them, so to speak; hence this alleged picture.

The camera was an Ensign De Luxe Reflex, size 3¼x4¼ inches; lens, a 6-inch Spencer Portland, at full aperture; plate, Ilford panchromatic; no ray filter. Don't remember the exposure—never do. Always get it b'guess and b'gosh. Violate all rules of scientific photographers who calculate exposures with actinometers and logarithmic tables. Don't spoil many plates at that. Positive made on Hammer slow plate and enlarged negative on P. M. C. No. 2. The print itself is a four-printing gum, Talens Rembrandt Black being the pigment used.

EL LENJERO VIEJO
(Toronto Salon)
By N. P. MOERDYKE
Los Angeles, California

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

VOL. XXXI San Francisco, California, July, 1924 No. 7

Our National and Pacific Coast Conventions

Are you getting ready to visit either one or both of these two big conventions? National Convention—Milwaukee, Wisconsin, August fourth to ninth, and the Pacific Coast Convention, Portland, Oregon, August twenty-fifth to twenty-eighth. Do not miss these opportunities.

Our Covers

This is the anniversary of the first change we have made in our covers for years and in honor of the occasion we are reproducing the first design which appeared on the cover of our July, 1923 issue. During the year many letters have reached our desk commending the change and a few have expressed the opinion that we should not use a line drawing because CAMERA CRAFT is a photographic magazine. The reproductions on our covers are just as surely from photographs as are halftones.

W. R. Potter, the artist responsible for these line engravings, is a professional photographer and what he says of the technique that enables him to produce them should keenly interest every subscriber.

"In choosing a cover for 'Camera Craft' beauty and utility were the two things considered and so paper became the governing factor. The rough, absorbent paper, unsuitable for any but line engravings though much higher in cost offered a problem, namely: to make line drawings compatible with photographic technique. The solution found itself. I work from photographs infusing what I can command of art and individuality much as the pictorialst selects from his negatives and works on them. The picture having been photographed, as in the halftone process, is now printed on zinc and etched until a good printing surface is obtained."

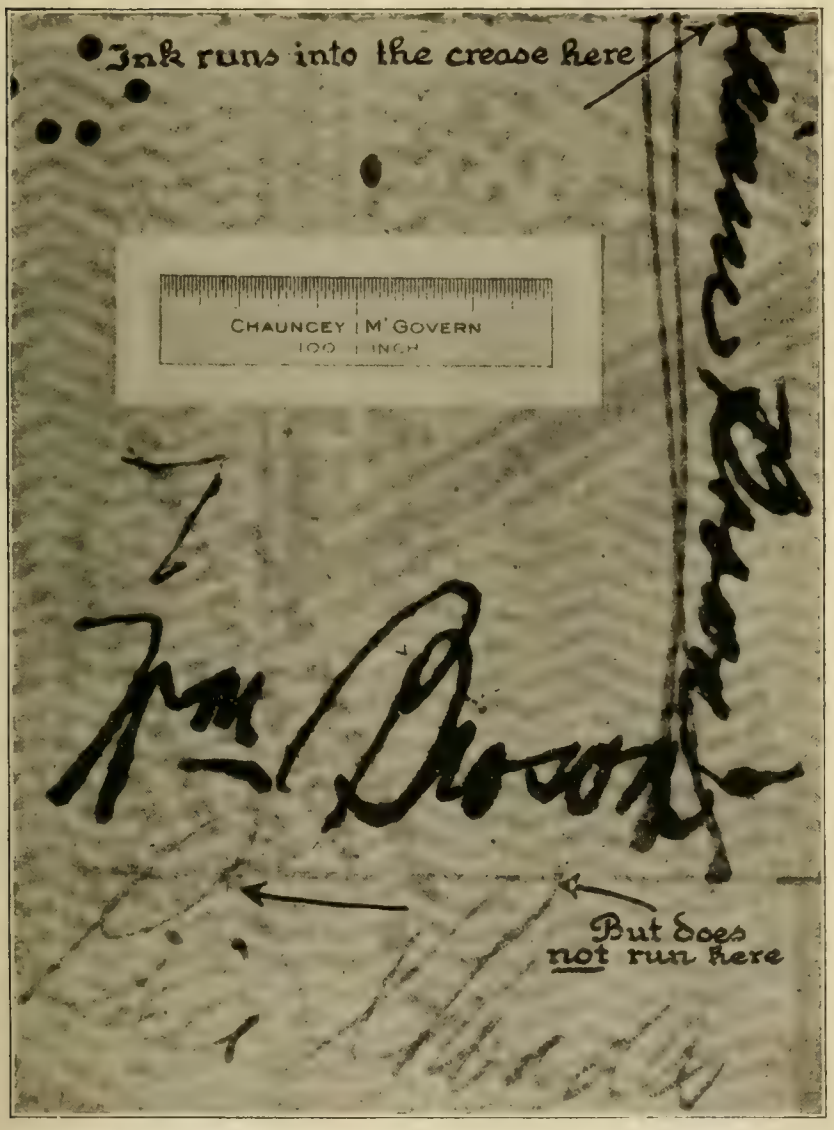
The method of applying the camera and its kindred processes to the making of pictures that are to every intent and purpose etchings, should stimulate our readers to trying their hands at so interesting and profitable a means of producing pictures.

In our August, 1923 issue, there is a very complete article on "Drawing in Pen and Ink from Photographs" by William S. Rice.

Expert Chauncey M'Govern Honored by The National Surety Co. of N. Y.

By P. Douglas Anderson

With Illustrations by Chauncey M'Govern



OTO-MICROGRAF SHOWING ENDORSEMENT N BACK OF ALTERED CHECK

By CHAUNCEY M'GOVERN
San Francisco, California

The striking value of fotografic work in lawsuits,—especially in cases where questions of forgery are involved,—is pleasingly shown by a great display of Foto-GRAFS and Foto-MICROGRAFS just collected for the American Bankers' Association by the National Surety Company of New York City. This exhibition was first shown at the annual convention of the Association; but is now on a tour of the country for free display in all banking centers. The object of the bankers in gathering the display is to put all financial people on their guard against forgers,—through showing by the Foto-Micrografs just how the forgers work,—and how the handwriting experts succeed in running down the perpetrators. All fotografers who have occasion to make negatives for banks or lawyers,—and all other fotografers who might have more business in doing this kind of work if they only knew the HOW,—will find this exhibition fascinating as well as revenue-producing in the way of suggestions.

Of equal interest is the fact that although the exhibition was planned from New York City, and its gathering directed from there, the fotografic work of Handwriting Expert Chauncey M'Govern, who writes regularly for CAMERA CRAFT, is the main feature of the display. His negatives were all made in the regular course of his professional work, done in big forgery cases unravelled by him for the National Surety Company. In each case the company paid the losses occasioned by the forgeries, which ran into millions of dollars. But the company felt that by having Expert M'Govern make his special kind of fotografic illustrations of the forgeries, the public would be on its guard against being victimized by similar forgeries in the future.

Three of the pictures,—one of a Foto-GRAF and the other two being Foto-MICROGRAFS,—are reproduced by courtesy of the National Surety Company which has just issued an ambitious circular about these forgeries for free distribution to all banking people in the United States.

One engraving shows the reverse side of a cheque for $2,771.25 where the payee's name had been obliterated and the name of an imaginary payee inserted, after which the imaginary payee's name was signed on the back. The endorsement of this imaginary payee is in black ink. Right underneath that name is the signature of a real person,—the man who had offices next door to the real payee's offices, and the man who actually cashed the cheque at his own bank. But while the Foto-GRAF really shows EVERYTHING of importance in locating the forger, it requires a microscope on that Foto-GRAF to give the reader (or bank clerk) a fair idea of what these features really mean.

Yet in running down the forger, it was a matter of vital concern whether the "Bill Rhodes" signed in red ink was done before, or after, the cheque had been FOLDED. Also whether or not the side signature "William Brown" had been written before or following the "folding." Here is where the Foto-MICROGRAFIC negative came into striking value. In that "running" of the ink of "William Brown" into the folds is so clearly seen that it is obvious that the folding there was done FIRST. And that

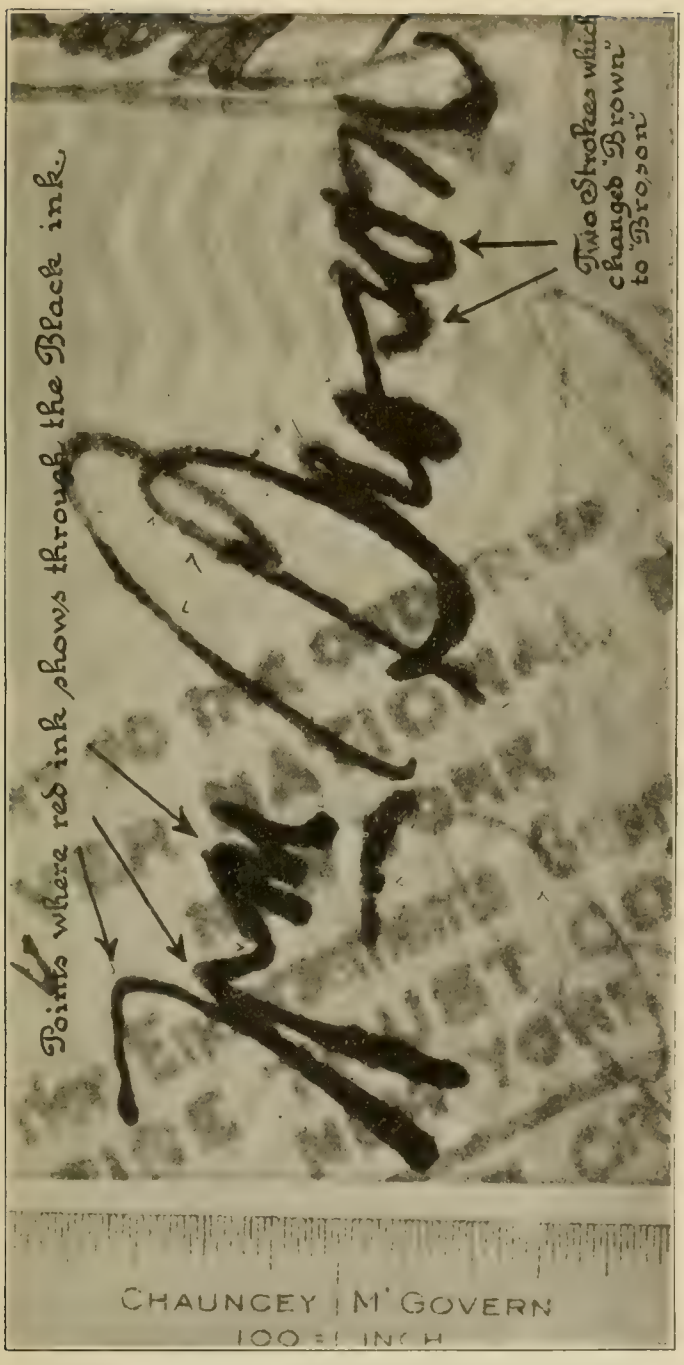


PHOTO-MICROGRAF SHOWING SIGNATURE ON BACK OF ALTERED CHECK

By CHAUNCEY M'GOVERN
San Francisco, California

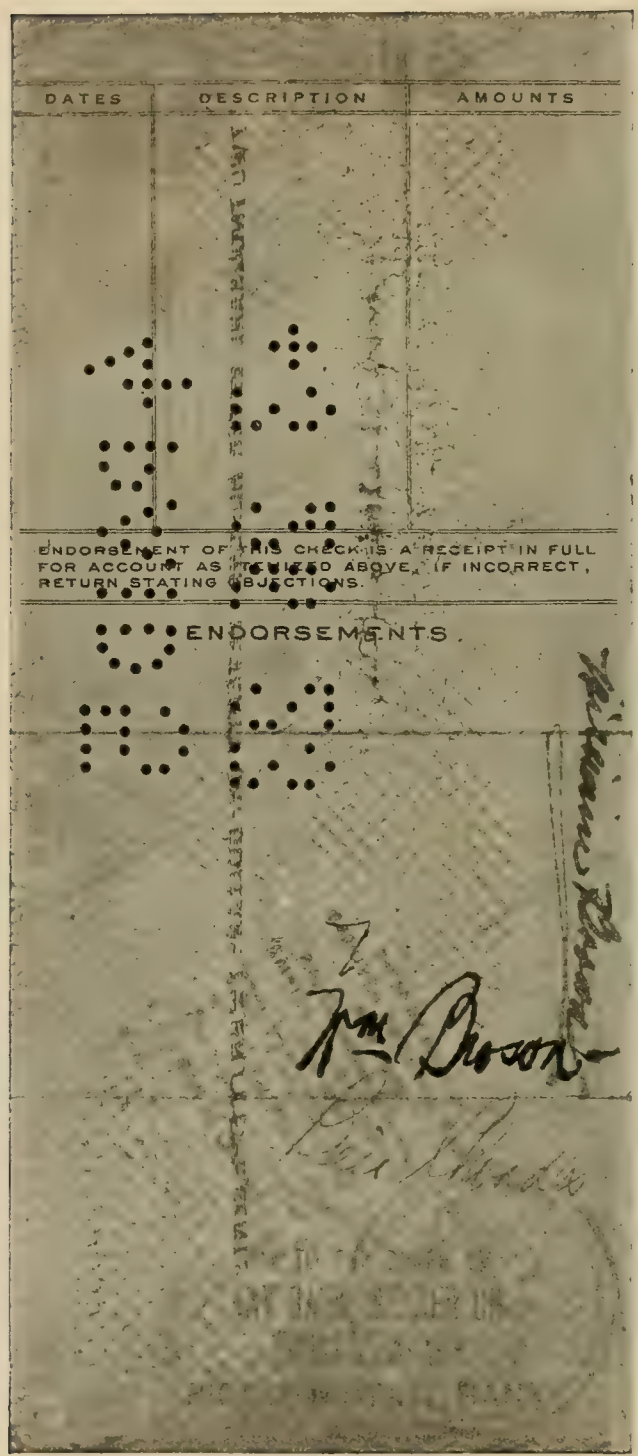

DATES
DESCRIPTION
AMOUNTS
ENDORSEMENT OF THIS CHECK IS A RECEIPT IN FULL FOR ACCOUNT AS STATED ABOVE. IF INCORRECT, RETURN STATING OBJECTIONS.
ENDORSEMENTS.

FOTO-GRAF SHOWING BACK OF CHECK

By CHAUNCEY M'GOVIN

the failure of the red ink in "Bill Rhodes" to run into the same fold, at another place, proves clearly that the latter signature was made before the fold.

It was next advisable to find out whether or not the black ink signature "Wm. Broson" had really been written FIRST in RED ink, like the "Bill Rhodes" and, if so, if the same man wrote the "Bill Rhodes" really wrote the "Wm. Broson" first in RED ink and had then gone over it in BLACK ink, to make the endorsement seem more plausible. By the use of a Panchromatic film, 11x14 inches, with an F. 32 diaphragm, and an "F" filter (Wratten), with two mazda lamps placed obliquely right and left of the cheque, the word or abbreviation "Wm." in this black signature was shown, in the resulting Foto-MICROGRAFIC negative, to be a RED SIGNATURE OVER WHICH A BLACK SIGNATURE had been DRAWN. But as a double proof that the word "Broson" had originally been "Brown" in RED ink, Expert M'Govern, before making this negative, REMOVED a PORTION of each letter in the word "Broson," BY CHEMICALS, which, removing the BLACK IRON NUTGALL ink of the word, left the RED ANILINE ink of the UNDER-IMPOSED RED signature, exposed to view. The little arrows indicate where nothing but RED ink is shown to be left. The "original" red ink signature "Wm." Brown" was then seen to be in the same hand as "Bill Rhodes."

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

42nd Annual Convention Photographers' Association of America Milwaukee, Wis., August 4th-9th

The Auditorium at Milwaukee furnishes one of the finest arrangements in the country for holding a Convention combining Exhibits and Meetings, as is the custom of the P. A. of A. Conventions. The main floor of the Arena will accomodate eighty-two exhibitor's booths comfortably, while an additional thirteen may be located on the stage. Plans and contracts for assigning booths were released the early part of May with the result that two-thirds of the total number were subscribed within the first two weeks time. This is mentioned as a sort of criterion on how the large Manufacturers and Dealers in photographic supplies feel about the success of a Milwaukee Convention.

The second floor of the Auditorium is just suited for meetings and demonstrations. A stage, comfortable opera chairs, a pipe organ and seating capacity of twelve hundred; what more could we want?

Next of importance is the Picture Exhibit. Plans for this have been laid with a view of giving the officers in charge ample time to properly arrange the various groups and present an Exhibit worthy of the National Convention. By setting a time limit, July 19th, for receiving packages of prints, there will be plenty of time to open, catalogue, judge and hang the pictures. All that is needed is an ample

supply of material for them to work on and that means,—send in your best work. Vice-President Brakebill wants about six prints, mounted but unframed from each member of the Association and hopes to have an Exhibit that will be an inspiration for all. Packages of pictures should be addressed to Photographers' Convention, care S. R. Campbell, Jr., Gen. Secretary, Milwaukee Auditorium Manager's Office, 500 Cedar Street, Milwaukee, Wis., and labeled PORTRAIT or COMMERCIAL EXHIBIT as the case may be.

It is gratifying to know that the much admired British Exhibit will be on hand. Assurance has been received from the P. P. A. of Great Britain and Ireland that a selection of 50 photographs taken from their Congress will be immediately dispatched for our Convention. Another special exhibit is that from Frederick & Nelson of Seattle, Washington. This exhibit comprises fifty-one prize winning photos from their second, third and fourth salons.

President Stearns has announced a "well balanced" program of Art and Business talks. This latter is entering the lives of the photographer more and more, every day, until it is now impossible to properly proportion a program without giving Business equal attention with Art. It will even be carried out, at Milwaukee, by an exhibit of newspaper ads, folders, circulars, letters and copies of the many things used to attract customers to the studio.

The entertainment feature of the Convention has been worked up in fine shape. Monday night, the Reception; Tuesday night, an entertainment on a beautiful roof-garden; Wednesday, a luncheon for the ladies at a Yacht Club several miles up the Lake; Thursday night, the Banquet in a capacious dining room that will seat over twelve hundred.

And last, though none the less important, is the reduced fares to Milwaukee. The railroads have consented to let us use the old, familiar form of identification certificate which is obtainable from one's local ticket agent. Upon validation at the Auditorium, it will entitle the holder to the return trip at half fare. These certificates will permit members of the Association to bring members and dependent members of their families to Milwaukee on the same return privilege. But,—DON'T FORGET to get the certificate from YOUR local agent at the time you buy your ticket to Milwaukee. It will be impossible to obtain a certificate at the Convention.

To enable photographers to make reservations we give the following list of Milwaukee hotels: Wisconsin, headquarters Martin, Maryland, Pfister, Plankington Republican, Astor, (residential). Rates range from $2.50 a day for single rooms up.

Special Notice

The final date for receiving pictures fo the picture exhibit has been extended fron July 19th to July 29th.

The entertainment features are com pleted and insure an exceptionally goo time.

The following is a list of those who wil appear on the demonstration program— John Vanderpant, Vice-President of th Photographers' Association of the Pacifi Northwest, illustrated talk on Pictoria Photography; Sheasgreen on Costs; Ros Crane on Studio Decoration; Georg Harris on System; Fred E. Smith, an illus trative demonstration on Hostelers. Th commercial section will furnish an inspira tional talk and sketch by talent from th Detroit Commercial Association. Othe national demonstrators will also be on th program.

Convention Plans

A few days ago forty enthusiastic Mi waukee photographers sat down to dinne with President Miller and Secretar Glander of the Wisconsin Photographer Association, and discussed with Presider Stearns and James Reedy of the Nation Association ways and means for makir the coming Milwaukee convention the bes biggest and most friendly photographer convention ever held.

This is the spirit of co-operation ar enthusiasm that seems to prevail ever where. All the surrounding associatio have given up their conventions for th year and have asked their members to jo in this one big meeting.

EXHIBIT HALL, AUDITORIUM, MILWAUKEE

Realizing that this is a time when photographers are looking for better business methods and new ways of getting business, a good part of the program will be devoted to more business and better business for the members. The art side will not be neglected, however, and the best available talent in the country has been secured.

There will be an advertising exhibit showing the advertisements used by photographers the country over so that every one can see how the other fellow goes after business. If you have advertisements that have helped you, send them to Clarence Stearns, Rochester, Minn. so they can appear in this exhibit.

The picture exhibit will be in a fine, well lighted hall and there will be foreign exhibits as well as individual and club exhibits. Here is where you can help. Start now to make three or more prints for this exhibit.

The manufacturers and dealers will be there, hundreds of them, to show you a good time and everything that is new in photographic equipment.

The entertainment features will be most enjoyable. There will be the usual reception and dance on Monday night. On another night an entire theatre has been chartered and after the theatre a party arranged for on the roof-garden of the same building. This is the largest roof garden we have ever seen and the dance floor will accommodate seven hundred couples. On Wednesday the ladies will be given an auto ride ending at the Yacht Club, where luncheon will be served. The banquet on Thursday will be in a banquet room large enough to seat twelve hundred people.

Wisconsin auto-roads are excellent and there will be excursion rates on all railroads. One can hardly afford to stay away. LET'S GO!

JOHN VANDERPANT

John Vanderpant, Vice-President of the Photographers' Association of the Pacific Northwest, will deliver an address on "Pictorial Photography" to the members at the P. A. of A. Convention.

Mr. Vanderpant is one of the leading pictorial workers in the photographic profession. He has won many honors in the various Salons and is well qualified to talk on this subject. He is an entertaining speaker and we know that the members have a treat in store.

Winona School
July 7th—August 2nd
Winona Lake, Indiana

We have received quite a number of inquiries lately, regarding the total expense to those who desire to attend the Winona School of Photography, conducted under the auspices of the P. A. of A. at Winona Lake, Indiana. We hope that the following will clear up the question for any remaining inquirers.

The actual expense might be separated into three headings—Railroad Fare, Board and Lodging, Tuition or Expense at the School.

The first of the above items can be determined by consulting your local railroad agent. Winona Lake is situated 100 miles east of Chicago and 40 miles west of Fort Wayne. During the Summer Season special rates are in effect from various parts of the country, due to the large Chautauqua held there. Be sure to ask your ticket agent if such a rate is in effect from your town.

Second on the list—Board and Lodging may be secured from a list containing the names and addresses of fourteen hotels and Boarding Houses with the prices ranging from $15.00 to $30.00 a week or rooms may be secured from a list of over fifty cottages where the prices are from $5.00 a week up. Practically all the places grant a special price to the Student attending the Winona School of Photography. The securing of advance reservations is strongly recommended so that one's entire attention upon arrival can be given to the School.

Third — School Expense. The $50.00 tuition covers the entire cost of instruction, materials, use of equipment and all supplies needed in the process of carrying on the work of Photography. Note books are optional with the individuals and about the only thing one could desire that is not regularly furnished. The equipment used is of the very latest types and insures every department being strictly up to date.

Taken all in all, the four weeks course under Director Towles of Washington, D. C., is as economical a short course, while at the same time, as thorough and intensified, as could be arranged. It is the general expression of former Students that the time and money spent at the Winona School of Photography is without a doubt "the best investment ever made."

$10.00 will register you with the Secretary, No. 722 Bond Building, Washington D. C., while the balance of tuition, $40.00 is payable at the School.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

The Jinks Program

In honor of the Eastman School of Professional Photography the P. A. of C. put on a Jinks Program at their monthly meeting. They had as their guests A. W. Pye, manager and Harry H. Shed, assistant manager of the Pacific Coast Branch of the Eastman Kodak Company, and the following three members of the Eastman School of Professional Photography: A. B. Cornish, J. B. Glaze and B. N. Sederquist. To say that the jinks was a success would be putting it far too mildly, it was a knock out. The program possessed a snap and a punch that was refreshing. There were no dull moments, no waiting, everything kept moving along.

Ralph Young was chairman of the committee in charge of the entertainment and both he and his committee worked hard for the success that was attained.

The program was started off with several snappy numbers by the Jazz Boy Orchestra. Hotstuff Lothers was on the drums, Sigismund Blumann at the piano and both of them and the other members of the orchestra are certainly to be congratulated on their playing. Right in the middle of one of their selections a fuse plug blew out and they were left without lights. Did they stop? They did not, they kept right on. We sure will have to give them credit for knowing their stuff.

After the prologue the one and only Lee Stopple appeared in front of the screen to announce the next number. Lee was a hit. His attire was very becoming. The evening suit that he wore looked as if it had been put out on the clothes line to air and then promptly forgotten. The rain rained and then the sun came out. The suit shrivelled up and when he had it on it looked like a coming out suit.

Barbara Ann, the wonder child, was splendid in her dancing act. Her two numbers were great. She was accompanied on the piano by Miss Evelyn Moulin. During the intermission, while Barbara Ann was preparing for her second number, Miss Moulin entertained by a well rendered selection on the piano.

Mrs. Ralph Young sang two numbers in which she displayed her mastery of the southern dialect. She was accompanied on the piano by Miss Moulin.

Mr. Moulin is to be congratulated on having such a talented daughter as Miss Moulin proved to be.

The Feist Male Trio in popular songs of the day were very enjoyable.

Hoot Mon Anderson, otherwise known as P. Douglas Anderson, sang a couple of songs in his strong Scotch accent and the audience thought they had Harry Lauder with them and almost refused to permit Anderson to leave the stage.

The Dougandahl Sisters, Miss Kathleen Dougan and Miss Olga Dahl, in their skit, Flu Flu, the only four-armed girl in captivity, were a scream. Miss Dougan delivered the patter and Miss Dahl supplied the arm motions.

Mrs. Herzog, accompanied by Mrs. Hoey, rendered several songs in a very pleasing manner which were enjoyed very much.

A skit was put on by McKie Donnan and Ralph Young. The scene was laid in a studio. Ralph was the photographer and McKie the black faced porter. Their most acceptable jokes were about several of the members of the organization.

The evening would not have been complete, to the ON TO PORTLAND Committee at least, had not there been a special opportunity for them to talk about the Portland convention and get the signatures of those going. This was accomplished in a unique stunt that set the crowd roaring with laughter and left in its wake a great enthusiasm for the Portland convention.

P. N. W. Association News

PORTLAND, THE CONVENTION CITY

AUGUST 25TH TO 28TH INCLUSIVE

C. F. RICHARDSON, Secretary, Milwaukie, Oregon

The Photographers on the Pacific Coast west of the Rockies are cordially invited to attend the convention at Portland, Oregon, August 25th, 26th, 27th, and 28th, 1924.

Clarence Stearns, President of the Photographers' Association of America, will be on the Portland Convention Program.

On the Program at Portland

Sigismund Blumann, Efficiency Expert of San Francisco, will deliver two talks, one on "Ethics" and the other on "The Business of Photography."

Mr. Blumann is well known to the photographic profession. He has delivered many excellent talks to photographers that were full of worth while ideas. Several of his talks have been reproduced in Camera Craft and have aroused a great deal of interest. Mr. Blumann not only knows his subjects but knows how to tell what he knows in an entertaining manner.

Laurence B. Morton, President of the Photographers' Association of California and Ex-President of the San Francisco Commercial Photographers' Association, will talk on the "Development of a Commercial Organization." His talk will take the place of the one which was to have been given by Gabriel Moulin, President of the San Francisco Commercial Photographers' Association, as Mr. Moulin finds it impossible to be in Portland when the Convention is to be held.

Mr. Morton was Chairman of the California Delegation that attended the Washington Convention last year and his ability as an organizer and executive head is well established. We know that his message will be full of meat and an inspiration to all.

The Seattle Questionnaire

We have just received a copy of a Questionnaire that was sent to the photographers of Seattle. It is very interesting and contains many questions that will, undoubtedly, be of interest to all members of the photographic profession.

It is our purpose, as space permits, to publish extracts from this Questionnaire as we are sure that the problems confronting the photographers of Seattle are equally applicable to other parts of the country.

Two Letters from President Zinn

Associations and Conventions

In every line of business it has been proven that Trade Associations are not only potential factors of success but vital to the welfare of industry. The stability of trade is in the profitable pursuit of its various branches. Associations create enterprise, cure evils, and mitigate dangers arising from evil practices. Wholesalers and Manufacturers have long ago found this out and foster such organizations in every way.

But Trade Associations languish and die when limited to the dull routine of local activities. To stimulate them dinners functions of all sorts more or less social as well as professional are devised Nothing hitherto thought of has been as effective as Conventions.

When men in any line of endeavor forgather from far and wide with their unity of interest and purpose they not only en-

courage one another but are subconsciously and automatically encouraged to greater activity and fresher enterprise. Producer and Consumer are brought together intimately and the contact thus established carries over and through the year. Then, too, the Producer can instruct the Consumer as to the best use of his products and at the same time learn the specific needs of the user for his purpose and in his particular territory. Many a manufacturer has learned as much as he has taught at conventions.

This Convention, located on the extreme western side of an enormous stretch of land, removed from the more intimate contact of eastern and middle western states, is an especially fruitful field for the exploitation needed by the makers of goods of any sort. Particularly is this true of photographic things.

The efforts we are making toward an unprecedented success and the promise of an astoundingly large attendance encourages us to urge you not only to reserve booth-space early but to reserve generously and prepare for adequate assistants in the booths. We will furnish you the biggest crowd you ever saw at a Photographic Convention. You help to take care of them at the Convention when they come to YOUR booth.

The charges for the booth space are in full and final: There will be no unforeseen, contingent, or entertainment charges. The rates are astonishingly low. We want you and we will make you glad you came.

The attendance from California on the South, Washington on the North, not to speak of Canada and the adjoining states will be very large. The California contingent are coming in a body. Be here to welcome your customers and to make new friends.

J. A. ZINN, Jr., President.

The National Board Okehs Our Year Book
An Open Letter to Manufacturers of and Dealers in Things Photographic

. It has been the custom for more than ive years past, of the Photographers' Association of the Pacific Northwest to ssue a yearly booklet generally termed a Convention Program."

This booklet has served many purposes. It has increased the attendance at the conventions because it has informed the photographers—both members and non-members—of the attractions forthcoming and so prepared the photographer in advance to make the necessary preparations to come. Secondly, the purchasers of booth space were able to exploit in advance to the visitors expected and to the prospective customers at large what they would exhibit. As will be seen from what follows this is a real asset to the trade. Thirdly, the moneys derived from such advertising enabled and will enable us to do the useful and profitable things which conventions only can do, in a large better way.

Up to this year a ruling of the National Photographic Exhibitors' Convention Bureau has prevented many dealers from using space in our yearly booklet, but this year we have secured their okeh and are able to give the dealers and manufacturers an opportunity of advertising the products that will be shown in the various booths at Portland. This will work two ways—it will benefit the dealers and manufacturers, as the photographers will be able to know what products are in the Convention hall and so be able to see the products most interesting to them. Without this advertising many photographers miss the ones that would have interested them most. And it will benefit our Association as it will help us put across the convention idea to more photographers and therefore help them with the demonstrations and talks to better their methods of making photographs and so help them make better livings.

This booket is mailed gratis and postfree to every photographer on the Pacific Coast, thirty days before the date of the Convention and is passed out to everyone attending, at the door. This guarantees a circulation of nearly 2000 copies.

There can be no medium that will be read with equal interest by photographers, especially at the time when the Convention creates a mood for just the sort of matter the booklet furnishes. It must appear that an opportunity is offered for specific advertising that can be found nowhere else.

Certainly we can devise no way equally effective in making the convention a success and in inducing a large attendance. The success of Conventions have proven of vital importance in making for the success of Photography as a business. The success of Photography means the success of those who live by it, and these are the consumers of photographic manufactured goods.

This booklet will contain at least thirty pages, 5¼ inches wide by 7½ inches long.

It will have a beautifully designed cover characteristic of Portland, Oregon; the city in which the convention is to be held, this year, 1924.

It will contain—

The complete program, portraits of the leading demonstrators taking part therein, a general outline of the activities of the Association for the year past and suggestions for the year to come, and a mass of interesting and profitable reading matter tending to the betterment of the business in general.

The Rules and Regulations pertaining to entries by photographers for Salon Honors.

Information as to how to get to the Convention city from all parts, hotel rates, and information of other sorts usual in such affairs.

Data of various Pictorial Exhibits on the Coast with dates.

Suggestive Price Lists, Code of Ethics, and so forth. In fact everything that will interest and benefit photographers in all branches of the profession.

The advertising rates are:

Full page (5¼ wide by 7½ long).....$20
Half page (5¼ wide by 3¾ long)..... 15
Quarter page (may be divided two ways) 10

Our Secretary-Treasurer, C. F. Richardson, Milwaukie, Oregon, will be glad to reserve your space and forward contract therefor on request.

Respectfully yours,
J. A. ZINN, Jr.,
President, P. A. of P. N. W.

The Amateur and His Troubles

Conducted by P. Douglas Anderson

TIMELY HINTS FOR AMATEURS

By Percy B. Prior

Removing Prints from the Glazing Glass

The amateur often spoils prints in removing them from the "glazing" glass. If it is found that prints, when dry, will not "strip" easily and cleanly, paint the backs liberally with formalin. When they are thoroughly dry again they will come off the glass without their glossy surface being affected in the least.

Putting Titles to Negatives

The lettering of the title on a negative should be reversed. First write the title in copying ink on a pretty stiff piece of paper with a smooth surface. Soak the negative until the gelatine is softened, drain off the water, and then place the paper bearing the title in contact with the gelatine. Press paper and negative together for about two minutes. Then separate them, and it will be found that the title has been impressed on the negative. Should the impression not be sufficiently opaque, darken the letters with India ink.

Using Blue Print Paper

Ferro-prussiate (Blue-print) paper, may be used in printing from negatives with a fair amount of success. The chief drawback is that it does not reproduce all the finer details of a negative. It is most suitable for seascapes.

Before use, the paper is of a bluish grey color on the sensitized side. It is exposed to the light in a frame, and afterwards is merely washed in water for a few minutes,

and then dried in the usual way. Washing has the effect of "fixing" the paper, which changes from bluish grey to deep blue as soon as it is immersed in water, becoming even darker when dry. The image on the print, varies from pure white to blue, according to the density of the negative.

Various Means of Producing Prints of Different Tones on Self-Toning Paper

There are various means of producing prints of different tones on self-toning paper. For example, prints that are placed in the fixing bath without any preliminary washing have a decided brown color when finished; those that are placed in a bath of plain water or weak bicarbonate of soda solution prior to being fixed, have a much warmer tone; while immersion in a solution of salt and water produces a colder color. Thus the amateur photographer can produce prints, each having a tone to suit the particular type of picture.

It is possible, with very little extra trouble, to produce prints in which two or more tonings are combined. The method is as follows:

With a small camel-hair brush different portions of the print can, prior to fixing, be painted with plain water, bicarbonate of soda solution, or salt and water solution, according to the tones desired. Care must be taken to confine the different solutions to the portions where the particular tonings are desired. It is advisable, therefore, not to have the brush too full, and also to follow the outline very cautiously so as not to overlap.

When the prints thus treated are placed in a hypo bath, the different tones will be clearly defined. After one or two trials, the best arrangement or allotment of the tones will readily suggest itself to the photographer.

Cleanliness is Essential to Success in Photography

You cannot be too particular in keeping all dishes, measuring glasses, etc., scrupulously clean. The slightest touch of hypo in a vessel used for developing solution will spoil the negative or print.

As far as possible, use one dish for one purpose, or, at least, keep the fixing dish exclusively for hypo solutions. Where one dish is used for different solutions, from time to time, wash it thoroughly before putting it away. When a solution is allowed to dry on it, a dish is much more difficult to clean perfectly. After washing them, turn the vessels upside down to drain instead of wiping them with a towel. There is always a danger of the towel leaving some impurity on the dishes. Soap must be used with caution, because it is strongly alkaline.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

New Printing Processes

It is probable that the future will bring many additions to our present methods of printing, especially when the school of trained photographic chemists devote themselves to a deliberate study of the whole field. In proof of this I would quote the four new processes recently patented by Dr. Erich Stenger and Dr. Alfred Herz, in Germany, and described in the Photographische Rundschau. The full working details are yet to be perfected or revealed, but I will briefly explain the principles.

If an exposed but undeveloped plate or sheet of bromide paper be surface moistened with just sufficient developer to be used up by the silver thrown down in the shadows, but leaving a surplus in the high lights and half tones, (which will of course be proportionate to what has been removed) this surplus if transferred by contact to another sheet of bromide paper

that had been previously exposed to light would develop thereon a deposit of silver equivalent to the amount of transferred developer. This image would be the reverse of the original print or paper. A variant of the same principle may be used to give direct copies of positive from positive. If an ordinary bromide print or a transparency be dampened with just sufficient ferricyanide and bromide solution to bleach it, there will remain over a graded surplus of the bleaching solution capable of removing the silver from a sheet of blackened bromide paper and so duplicating the original picture. Either process may not be of particular practical importance at the present stage of development, but they show latent possibilities.

There are two other processes that seem to offer many and immediate utilities. We all know that if gelatine be sensitized with potassium bichromate and exposed to light under a negative it will form an image in hardened gelatine which, if placed in plain water or salt dissolved in water, will absorb such solution in proportion to the action of the light. The high lights charged with fluid are in relief and the shadows proportionately sunken. If the contained fluid is a dye the color may be transferred to paper (as in pinatype) or as is now proposed, the fluid may be a chemical substance that will only yield an image when it is treated in turn with another chemical, resulting in a colored precipitate. For example, the bichromated film can be swollen with a solution of a ferric salt, a contact image impressed onto paper, the latter dried and then immersed in a solution of a ferrous salt, with the production of a Prussian blue image. From one soaking of the film the authors have been able to make as many as forty prints, and then the film had only to be resoaked to repeat the same. There are commercial possibilities in such a process.

Lastly, if instead of a chemical solution the water be charged with a sticky fluid, the latter can be transferred to a surface and the image developed with dusting-on powders. Behind this lies great possibilities for pictorial photography. All this only shows how much there is lying undeveloped at our feet. The lines followed by Drs. Stenger and Herz were obvious ones and should have been explored long ago.

H. D'A. P.

Fixation Time

I have often reported the valuable work that Lumiere and Seyewitz give to the world in their bulletins, among which the subject of fixation has occupied a prominent place. Their latest report deals with the minimum period required, and it will be a surprise to most people. A minimum fixation time of twenty seconds will take most people's breath away, and the assurance that three minutes soak in twenty per cent hypo at sixty-four degrees is sufficient is little in accord with general belief. The British Journal of Photography points out that in these experiments the papers were separately fixed whereas in average practice films and papers lie one on another under quite different conditions. In any case it is comforting knowledge that we can, with their conditions, safely fix in a few minutes. The following conclusions refer to a selection of the best known American and European development papers.

Conclusions

1. The minimum time required for the fixing of a ½-pl. sheet of bromide paper in a 100 c.c.s. of a 20 per cent solution of hypo at 64-68 deg. F. may be taken as 15-20 seconds in the most general case.

2. The addition to a fixing bath of the usual quantities of sodium bisulphite, alone or mixed with chrome alum, doubles the time necessary for fixing with plain hypo.

3. When a series of prints are fixed in the same bath the time of fixing increases but little from the first to the twentieth sheet (which corresponds to the limit of use of the bath).

4. Lowering the concentration of the bath from 20 per cent to 7 per cent has little effect on the time of fixing. On the other hand, this is notably increased as the content of hypo is raised from 20 to 40 per cent.

5. Within the limits over which we have worked, the time of fixing varies inversely with the temperature. At 86 deg. F. it is one-quarter as long as at 50 deg. F.

6. The addition of ammonium chloride to the hypo solution does not accelerate the fixing as it does in the case of plates, whatever be the concentration of the fixer or the relative proportions of tne two products.

Practically, using a 20 per cent solution of hypo containing 20 c.c.s. of commercial bisulphite of soda solution per litre, with or without chrome alum, at a temperature of 64-68 deg. F., one may rest assured that the silver salt is completely removed after three minutes' treatment in the fixing bath, even when this bath is used to the limit of its capacity.

A. and L. Lumiere.
A. Seyewetz.

Notes and Comment

Eastman School of Professional Photography

This year's school is proving a great success. It is the most successful school year held by the Eastman Kodak Company that the writer has attended.

Presenting the different phases of photography by motion picture is a splendid step forward; not only does it enable the demonstrators to cover more ground in the same time but every one in the audience can see what is going on.

The members of the school, A. B. Cornish, J. B. Glaze, B. N. Sederquist and W. F. Sullivan, are to be congratulated on the manner in which they did their work.

We would recommend to photographers throughout the country that they plan to attend the school whenever they have the opportunity to do so.

Defender Photo Supply Company Buys Trade-Marks of Three Dry Plates from Eastman Kodak Company

An announcement has been sent out to the photographic trade by the Eastman Kodak Company that the trademarks of the Seed, Standard and Stanley plates have been sold and that after June 30th, will discontinue the distribution of these brands. This sale is in compliance with the decree of the Federal Court and the sale has been made to the Defender Photo Supply Company, of this city, which in the future will market these well known brands of plates. They will be manufactured, however, by the Eastman Kodak Company at Kodak Park as heretofore.

All of the above-named brands of plates have been manufactured in Rochester for more than twenty years.

To Make "Eastman Plates"

This sale does not mean that the Eastman Kodak Company is to cease marketing plates. They say:

"We shall, however, continue to manufacture and supply plates of the same high standard of quality and of the unvarying uniformity that have characterized our plates for many years. Beginning July 1, 1924, our plates are to be marketed under the name 'Eastman Plates' and will be supplied in a wide range of speeds and a sufficient variety of photographic characteristics to meet every requirement of the professional portrait and commercial photographer."

The Defender Photo Supply Company also makes an announcement to the trade that it has purchased these trade marks and trade names, with the right to use as soon as it is prepared to do so the formulas for the manufacture of the plates and the exclusive right to sell Seed, Standard and Stanley plates throughout the world.

Charles G. Willoughby Talks over the Radio

Motion Pictures for the Amateurs was the title of a talk given by Mr. Charles G. Willoughby, of the firm of Willoughby, New York, and broad-cast over the radio

to the Kodak fans of New York and elsewhere. This was a timely subject, as motion picture photography is very extensively practiced by amateurs throughout the country at the present time. The talk contained much valuable information about this fascinating pastime that should prove beneficial to all amateurs.

Willis & Clements, Inc.

The firms of Willis & Clements and Berry-Homer Co. have incorporated under the laws of the State of Pennsylvania, at Philadelphia, with the firm name of Willis & Clements, Inc.

The Company will continue to act as the sole American Agents of the Platinotype Co., Ltd., London, England, in the importation and sale of their Platinotype, Palladiotype and Satista Papers; make prints on these papers for the photograpic trade; also continue the enlarging and printing on bromide and chloride papers, and finishing and coloring for the trade.

Ohio Society Meets in Cincinnati

The members of the Professional Photographers' Society of Ohio spent two very entertaining and instructive days at their recent spring meeting in the studio of J. Anthony Bill, Cincinnati, April 7th and 8th. Although the attendance was not quite as large as usual, due to sickness in the families of several of the members, the meeting well made up in enthusiasm and punch for the fewer number present.

Gives Up Studio

W. E. Dassonville, one of San Francisco's leading portrait photographers and prominent member of the Photographers Association of California, has sold his studio to Mr. L. R. Carlton of the La Fayette Studio.

In the future he will devote his entire time to conducting his photographic paper manufacturing business. The first of his papers, Charcoal Black, has become very popular with the photographic profession and augers well for the success of the various other papers that Mr. Dassonville is perfecting.

H. E. Burns with Hirsch & Kaye

Hirsch & Kaye, 239 Grant Avenue, San Francisco, have been fortunate to secure the services of H. E. Burns, the popular and well known photographic salesman. We congratulate both parties.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

N. P. Moerdyke's Exhibition California Camera Club

Our frontispiece "Lower Away" and our illustration for the Picture of the Month Department, "El Lenjero Viejo," were selected from an exhibition of Mr. N. P. Moerdyke's work that graced the walls of the California Camera Club, San Francisco. The exhibit was very much admired and it was claimed by members of the club to be one of the best collections ever shown on the walls.

The prints were all in the Gum Process and the standard of the work exhibited was very high. There were several other prints that appealed to the writer and which he would have enjoyed reproducing. "Across the Arroyo" was especially fine.

Forman Hanna—Pictorialist

Forman Hanna, the famous pictorialist of Globe, Arizona, was a visitor in San Francisco during the month of June. He attended the monthly meeting of the Pictorial Photographic Society of San Francisco and the members certainly enjoyed his visit.

He is a splendid fellow and I am sure that I express the wish of other pictorialists throughout the country when I say that we would enjoy seeing him more often than we do.

Our Book Shelves

Print Perfection—How to Attain It
By Dr. B. T. J. Glover

This is a very practical treatise on the naking of prints that will be invaluable to nany a beginner in photography and also o many others. The manual goes very horoughly into the making of prints, deal- ng first with the properties of printing apers, then exposure, fixing, washing and rying of prints.

The manual is recommended to all who re interested in making better prints.

Published by Frank V. Chambers, 636 o. Franklin Square, Philadelphia. Price, aper 75 cents; cloth, $1.25.

Number 192 of the Photo Miniature
What Pictorialism Is

This is a discussion of what pictorialism , by F. C .Tilney. Although one doesn't lways agree with what Mr. Tilney says egarding pictorial photography, never- he-less, one has to admit that his remarks re very much to the point and are worthy f careful analysis.

In this number he discusses composition, iaroscuro, etc., and one cannot read what e has to say without deriving a great deal f benefit from so doing.

Published by Tennant and Ward, 70 ifth Avenue, New York. Price 40 cents.

Tracts for Pictorial Photographers
No. 2—Oil, Bromoil and Transfer
By Fred Judge and F. C. Tilney

The second tract of this series is largely om the pen of Fred Judge, F.R.P.S. His ork, in the oil and bromoil processes, is well known that anything he has to say the subject will undoubtedly be of in- rest and value to photographers.

The processes are described in simple, rect language that is easily understood all. Although the writers advocate ansfer in this tract they, never-the-less, ve a full description of the various pro- sses.

In the latter part of the tract Mr. Til- ney gives a summary on the various processes, comparing the advantages and disadvantages of oil and bromoil. He also has a few words to say regarding what is the most satisfactory type of press for transfer work. The tract is recommended to all who are interested in these processes.

Publishers—Henry Greenwood & Co., Ltd., 24 Wellington Street, Strand, London, W. C. 2. Price one shilling net; postage 2d.

Moving Pictures
How They Are Made and Worked
By Frederick A. Talbot

The first edition of this volume was published in 1912. As a result of the progress in the motion picture industry this edition was entirely re-written and presents a splendid treatise on modern motion pictures. It tells of the beginning of the industry and of the men who helped to develop it. It also gives an account of trick pictures and how they are produced; pictures in colors; pictures that move and talk; studio equipment; the risks taken by photographers and players, etc. There are numerous illustrations that lend interest to the text. Publishers, J. B. Lippincott Company, Philadelphia. Price $3.50.

Amateur Almanac for 1924

Deutscher Camera Almanach, Vol. 14. Edited by Karl Weiss. 79 illustrations.

The aim of this almanac is to present some of the achievements of amateur and professional photographers. For this purpose a well balanced selection of illustrations is included, excellently reproduced, and representative of different artistic tendencies, and different photographic copying processes.

The text of the almanac treats partly with the illustrations and partly with a review of the year's progress.

Published by Union Deutsche Verlagsanstalt, Berlin, S. W. 19. Price $2.00.

International Photographic Association

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St. Berkeley, Calif.

John Bieseman, Director Post Card Albums, Hemlock, Ohio.

Lovic Meredith, Director Stereoscopic Division, Rupperttown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

ALBUM DIRECTORS

Eastern Division, No. 1: Under the direction of Chas. F. Rice, P. O. Box 245, Mamaroneck, N. Y., comprises New York, New Jersey, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Delaware, Virginia, West Virginia, Kentucky, Indiana, Ohio and Michigan.

Western Division, No. 2: Under the direction of Allen Young, Room 413 Claus Spreckels Bldg., San Francisco, Calif., comprises California, Oregon, Washington, Idaho, Nevada, Utah, Montana, Wyoming and Colorado.

Southern Division, No. 3: Under the direction of Frank Reeves, Stamford, Texas, comprises Florida, Georgia, North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Louisiana, Arkansas, Oklahoma, Texas, New Mexico, and Arizona.

Northern Division, No. 4: Under the direction of Leonard A. Williams, 622 Second Avenue, St. Cloud, Minn. This division comprises Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota .

NEW MEMBERS

5343—Howard L. Mitchell, Box 115, Waynesville, N. C.
5x7 of pictorial; for the same. Class 1.

5344—Joseph McDonald, Broxwood, Pembridge, Herefordshire, England.
Class 3.

5345 Roy M. Reineke, 139 W. School St., Owatonna, Minn.
Class 2.

5346—C. E. Bottomley, D.D.S., Box 268, Burlington, Wis.
Class 2.

5347—James Meban, 82 York Road, Belfast, Ulster Ireland.
Class 2.

5348—Henley H. Hall, 511 West 32nd St., Richmond Va.
3½x3½, 4x5 and 5x7 of scenery, monuments street parades, scenes in foreign countries; for sunset scenes mainly, but will accept anything of interest. Class 1.

5349—Gordon W. Skinner, Box 505, W. Brownville Pa.
3¼x4¼ and 3¼x5½ and stereos of landscapes water scenes and wild life; for landscapes, water scenes, wild life and flowers. I desire to exchange only views, stereos and lantern slides. Class 1.

5350—H. Henry Puckhaber, Jr., 181 St. Philip St. Charleston, S. C.
Class 2.

5351—Leslie L. Haskin, Box 164, Brownsville, Ore 8x10 and smaller, Developing paper of wild flower studies; for wild flower and Indian studies. 5x7 preferred. I desire to exchange only negatives Class 1.

5352—Alfred S. McKenney, Box 103, Durham, N. H. 2½x4¼ of New Hampshire and general New England scenery; for scenes in general. Would like some Western scenery or foreign. Class 1.

5353—A. Goldie, P. O. Box 1594, Durban, Natal, S. A.
3¼x4¼ of Zulu native life and Natal landscape scenery; for landscape and marine views, also good pictures of peoples of country, with locality, etc., written on back. Class 1.

RENEWALS

1572—Harry E. Bishop, 1135 Fullerton Ave., Chicago, Ill.
Class 2.

4634—Charles N. Fenton, 203 Copster Hill Road Oldham, England.
Class 2.

4808—Dean P. Holmes, 11 West 2nd St., La Junta, Colo.
Class 2.

5159—C. A. Koch, Box 80, Collbran, Colo.
Post card size of wild animals, waterfalls, rivers and mountain views; for lakes, waterfalls and anything of interest. All letters from members answered promptly. Class 1.

5227—Roger A. Hart, 813 First St., Newberg, Ore. 2¼x3¼, 2½x4¼ and 3¼x5½ of Oregon scenes beach, mountain and highway views. Also some city views besides general photos; for city street views, buildings and especially street cars, locomotives and trains, or any railroad pictures. I desire to exchange only unmounted single weight prints black and white, sharp focus. Class 1.

To the Members of the Western Division, No. 2.

I am pleased to announce that a new album has been completed and will be put in circulation at once.

Members must dispatch the album promptly, upon receipt of same, to the next member on the list.

It is my intention to get out another album within the next month or two, but I am helpless unless each member contributes. Get your new prints ready now and remember, if you want action in this organization, you must co-operate.

Sincerely yours,
ALLEN YOUNG.

XXXI No. 8 AUGUST, 1924 Price 15 Cents

CAMERA CRAFT

SAN FRANCISCO CALIFORNIA

Vittex

A CHLORIDE PAPER for ENLARGING or CONTACT PRINTS

SURFACES:

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No. 3	K3
	K5
All weights made in normal and vigorous grades.	K7
	K16

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HARRIETTE E. CLUTE
President

IDA M. REED,
General Manager

CAMERA CRAFT

A Photographic Monthly

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Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California

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FOREIGN AGENTS

Australia { Harrington, Ltd., Sydney
Kodak, Australasia, Ltd., Sydney
Brazil Casa Stolze, Rua Direita, No. 14, Sao Paulo
China Squires, Bingham & Co., Shanghai
England Francis Collas, 16 Great New Street, Shoe Lane, London, E. C. 4.
Japan K. Kimbel, Yokohama
Malta Do Agius Catania, 41 Sda. Reale, Valletta
New Zealand Richard Hill, Matlock House, Devonport, Auckland
Philippine Islands { Camera Supply Co., 110 Escolta
D. Denniston, 118 Escolta
Scotland Robert Ballentine, 103½ St. Vincent St., Glasgow
South Africa A. Goldie, P. O. Box 1594, Durban

OFFICIAL MONTHLY ORGAN OF THE PHOTOGRAPHERS' ASSOCIATION OF THE PACIFIC NORTHWEST

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"B"etter
"C"ontact

AN A. B. C. report is a businesslike, deciding authority that has replaced the old custom of buying space on certain "claims" of the publisher.

The publisher with space to sell submits the facts about his business in the form of a statement to the Audit Bureau of Circulations. This statement after it is checked, approved or audited by the Bureau is used to place the publisher's wares before the Advertiser who is buying space.

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The careful Advertiser knows that the purchase of Space by A. B. C. reports cuts out inflated Waste Circulation and saves money that would otherwise be lost in paying for unproductive space.

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[WRITE TO THE AUDIT BUREAU OF CIRCULATIONS, 202 SOUTH STATE STREET, CHICAGO, FOR A COPY OF "THE MEASURE OF YOUR MESSAGE"]

RIVER NILE, EGYPT

By D. D. SPELLMAN
Detroit, Michigan

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

SIGISMUND BLUMANN, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI AUGUST, 1924 No. 8

Putting Human Interest in Illustrations

By Ralph Young

With Illustrations by the Author

The subject of putting human interest into illustrations is about as difficult to discuss as the subject of how to fall in love; or whether blondes or brunettes make the better wives.

There are, however, some "mechanical" factors in obtaining human interest in photographic illustrations which can be set down in black and white with a fair hope of their remaining true for at least as long as it takes for Camera Craft to be printed. And certain facts of the "human" side of the story may be set down in generalities.

Do not imagine from what is said that I think good photographic illustration directors are born and not made; that they are some heaven-blessed tribe of super-men, born wearing green smocks, with their hair about their ears. However, the fact does remain that some people have more natural imagination and curiosity about their fellow men than others and these have a better chance of being successful in this work than the unimaginative type or the man who for the most part prefers to live unto himself.

By and large, the one great qualification for portraying human interest is the possession of a tremendous amount of human interest yourself. The director who does not enjoy people cannot picture them in a way that others will enjoy. Models obtain their mental attitude in great measure from the director. A good model is simply a piece of clay, subordinating his or her personality almost in its entirety to that of the director.

The successful director is that man who is always studying people; on the street, in their homes, in offices—everywhere. He gets to know how people act and how they re-act, so that he can interpret this action in pantomime. He knows the facial expression of different types of people under identical conditions.

Similar knowledge is necessary for the direction of photographic illustrations as is required for the direction of motion pictures. Models must be directed to do deliberately the things that people generally do uncon-

By RALPH YOUNG (Lothers & Young) SAN FRANCISCO, CALIFORNIA

sciously. It is very seldom that untrained models can be made to act naturally. They usually, or I might say almost invariably, become self-conscious, awkward, strained.

For this reason it is necessary to have a large model file which is continually kept up to date and to which new types are constantly being added. It is necessary to have every type of model from babies to grandmothers and from flappers to army officers. Sometimes, in illustrations where the action required is far too technical to be taught to models, it is necessary to take actual workmen or other characters who understand the action thoroughly, and diligently train them. This oftentimes requires hours of time and a great deal of patience.

By RALPH YOUNG (Lothers & Young) SAN FRANCISCO, CALIFORNIA

It must be remembered that models are not super-human, nor are they mind readers. Even in the busiest rush at the studios it is time well invested to explain the story that the picture is to tell and arrange an atmosphere that will bring the proper reaction from the models. Very often we use music while a photograph is being taken; let models dance together for a time, to get into the swing of the scene, and merely suspend the action long enough to get the required pose. It may sound trifling, or actually silly to some people, but we have found the use of incense decidedly instrumental in creating certain atmospheres. Smoke and other odors bring desired reactions in other illustrations. We seldom endeavor to "fake" the process of eating, but give our models the actual food which

By RALPH YOUNG (Lothers & Young) SAN FRANCISCO, CALIFORNIA

they are supposed to be enjoying in the illustration. When a model was recently required to take the part of a music master, an electrically operated piano was brought to the studio for the scene and was playing while the model sat at the bench **pretending** to play.

Simplicity should be the keynote of illustrations. Even in the most complex scenes, requiring many people or a complication of scenery, some one part of the illustration should dominate everything else.

The most simple gestures, if true to life, can be pregnant with meaning. Notice the fireman pointing an accusing finger at the rag in his hand. You instinctively feel that it must have been soaked in oil by some incendiary.

By RALPH YOUNG (Lothers & Young) SAN FRANCISCO, CALIFORNIA

While the illustration of the elderly lady knitting is simplicity itself, s to composition, the animation of her hands and the happy twist of the ıouth make you know that she is thinking of someone who is to receive ıe garment she is making.

The outstretched hands and shrugged shoulders of the helpless bag- age checker, together with the downcast look of the lady tells more plainly ıan words the loss of her bag and the seeming hopelessness of the situa- on.

The picturesque contrast of Oriental costumes, surroundings and ıaracters and the modern telephone which the old man is helping the

Chinese child to operate contains a human interest story that created considerable comment for the large corporation for which it was created.

In an Illustration Studio there is a constantly shifting scene and a continual flow of different types of characters. Some entirely new and unusual illustration is needed so often that a director has no time to learn types as they are called for, but must be so familiar with all types that he may at once select the proper model to portray the needed character.

If I were asked to give a trinity of qualities for success in illustration work, they would be: Intense human curiosity; a desire for expression; infinite patience.

The first to discover character; the second to interpret it; the third to register it in pantomime.

"A Chat with my Neighbor"

By Walter Scott Shinn, New York

With Illustrations by the Author

Mr. Walter Scott Shinn is known to the profession. His standing needs no exploitation here. In the following charmingly chatty article he will further endear himself to his fellows. The layman must find an interest in so informal, yet profitable, an approach of the business of photography and it is for that reason that Camera Craft always offers so comprehensive a field for the attention of its varied class of readers, and their divergent tastes.

A photographer who is a neighbor of mine called to ask a few words of advice.

He said that business was far from what it ought to be, in spite of the fact that he had done quite some advertising. In order to give him any helpful information, I had to ask him some questions.

My first question was, "How much of your business can you trace from return customers and friends, or recommended patrons?" His answer was that he did not know definitely, but he knew he depended largely upon new customers. Also he seemed to think it was a big job to get such information and keep record of it. He rather thought the best way was to try to remember. It surely is not much work to make a note at the time each sitting is made. With only a little conversation, one can learn what influenced one to come to you.

At this point, it was my pleasure to tell him what I knew and had proved. My guide as to the healthy condition of my business is to watch the percentage of the two sources of business just mentioned. If patrons do not return, it shows my work was not good enough to keep up the enthusiasm of my patron to call me instead of letting some one else make his pictures. Then comes the terrible loss. Money has been spent in various forms of advertising to get this customer, then we not only lose that patron, but we lose the entire chain of friends of the lost patron and then the acquaintances of those friends. Still worse, instead of just losing all this business, in most cases we make "knockers" of dissatisfied customers instead of "boosters." My friend said, "According to your idea every customer may be worth thousands of dollars."

By WALTER SCOTT SHINN
New York, N. Y.

While this may sound exaggerated, it is really so.

Let us suppose for a moment we wanted to lay out a theoretical plan to build new business which absolutely could not fail.

Should customer number one be pleased to a point where the enthusiasm of that person brought two more friends, we should then have three customers. Then, if the next year each returned and we get only one new customer from each old one, we should have six customers from each original sitting. If such a theory worked out we must all grow beyond control. Of course, it is ridiculous to expect to please every customer to this extent as there are too many conditions beyond one's control for this to be possible. However, this is at least a hopeful target to aim at and our success depends upon the nearness that we can come to the mark.

By WALTER SCOTT SHINN
New York, N. Y.

By WALTER SCOTT SHINN
New York, N. Y.

The next question that came up was, "What can I do to raise my average of return customers?"

It would be impossible to work out a fixed plan to help each individual photographer, but in many instances photographers have an idea that a good photographic plate and print does the trick. We all know these are important factors, but the largest factor is, first, to decide the purpose of the picture, then size up the unusual conditions which may influence the final decision of the proofs. Lately I had to photograph a frizzly haired child. Mother and grandmother came along to boss the job. With a few minutes observation, I found mother wanted the hair to fluff out, grandmother liked a big hair ribbon on her and I learned that daddy liked the hair brushed closer than mother liked it and no hair ribbon. I reasoned that they would be moderate buyers and that the job would very likely be a loss to me, for to make a hit, I had to please three judges of different ideas of hair-dress and clothes. However, I shot at my target and made three sets of plates of the child. If I had failed, at least one of the three persons would have been a "knocker" instead of a "booster." The customer never tells his friends that the failure was due to his extreme ideas.

If one follows out one's own feelings we might figure it out this way. Father pays the bills, mother-in-law bosses the mother and the two make the decision. Daddy has to be pleased to get him to pay the bill. The photographer would save money not to do the job where a small order is in view. But his sign says, Photographer-of-Children and he cannot afford to fail if there is a way to prevent it, even though the job costs him more than he gets out of it.

A picture made near a window is almost a sure sale and is easier to make in the home because that is where the light is. At Milwaukee I shall show you how to make them without halation.

Such are a few of the psychological quirks and difficulties, as I have encountered them. At the Convention I hope to meet my neighbor and hundreds of other folk's neighbors. I shall try to show them more ideas of how to make good, salable photographs.

FORTHCOMING EXHIBITIONS, 1924

October 17th to November 23rd, 1924—San Francisco International Salon. Last day for receiving prints, September 29th, 1924. Particulars from H. A. Hussey, Secretary, 64 Pine Street, San Francisco, California.

October 4th to November 14th, 1924—The Eighth International Salon of Photography under the auspices of the Camera Pictorialists of Los Angeles. Last day for receiving prints, September 15th, 1924. Particulars from John C. Stick, Director, 811 Washington Biulding, Los Angeles, California.

September 15th to October 25th, 1924—The 69th Annual Exhibition of the Royal Photographic Society of Great Britain. Last Day for receiving prints, August 15th, 1924. Particulars from H. H. Mackloed, Secretary, 35 Russell Square, London, W. C. 1.

September 8th to 13th (inclusive), 1924—Fourth Annual International Exhibition of Pictorial Photography, New Westminster, B. C. Canada. Last day for receiving prints, August 31st, 1924. Particulars from D. E. MacKenzie, Exhibition Secretary, Hart Block, New Westminster, B. C. Canada.

Is Photography an Art?

By Frank Scott Clark, Detroit

With Illustrations by the Author

By FRANK SCOTT CLARK
Detroit, Michigan

I once heard a photographer ask the late Elbert Hubbard that question. Hubbard's answer was: "Art among photographers was principally hair cut and necktie."

I ask you readers, can a photograph have the significance of art?

Photography as a business, has more fakers working at it than any other business I know of.

It takes but a few weeks to learn to expose and develop a plate or

By FRANK SCOTT CLARK
Detroit, Michigan

film; make and develop a print on developing paper. All that is required by their subject is a resemblance, as ten thousand out of ten thousand and one do not know anything about pictures and the average photographer knows no more than his subject judged from the viewpoint of the artist.

The greater the craftsman the finer the document (as a photograph is a document whether you care to admit it or not).

The great trouble with the modern photographer is his useless tampering with his medium and in trying to use the control he thinks he has over it, abusing it.

By FRANK SCOTT CLARK
Detroit, Michigan

The camera sees things with its single eye, in detail, clear. No lost and found line as in painting, etching, lithography, wood-carving and the hand crafts. To tamper with the film or paper by tricks is to stultify it.

The daguereotype still stands out as the most refined, most delicate, most beautiful miniature portrait that has been made with a camera to date; the average photograph being turned out to day is an eye-sore, while the daguereotype was a thing of beauty. WHY? The answer is that the photographer could not tamper with his medium; the slowness of the process compelled him to use neutral toned background and never added unsightly things to disturb his subjects. So the modern photographer in

his effort to produce an artistic result without artistic training (and I know of but few who have had such training) debauches his work through his ignorance of the limitations of his machine.

Soft focus lenses have done much toward destroying quality. Soft focus must be used with intelligence and all lenses for portraiture should be long focused. The snap shooter, going from house to house with a camera on his back, using an 8x10 lens, with its horrible distortion, gets by because ten thousand subjects do not know anything about pictures of any kind and with the one that does know, they do not come in contact. This is why I call photography a business.

To be successful in the business of making these photographic documents, one must be interested in persons. The greater your psychology the more perfect your control!

Use your imagination!

Picture to yourself the mind and feelings of your subject and in proportion as you do this you "get him" and hold his interest.

You lose your grip on your subject when you fail to see rightly whither he is straying; hence, you cannot follow.

The salesman cannot sell when he cannot assume becoming his own prospective buyer. The photographer cannot succeed with a child when he cannot become as little children. To be successful you must get out of your mind over into the minds of your subjects.

Think well of yourself and conduct your business with dignity.

Coloring Photographs

By Avenir Le Heart

Author of "The Art of Coloring Photographs"

Reproducing the colors of nature by tinting with pigments or dyes the black and white tones of a photographic print is as yet a crudely practiced, slightly developed art. It has not been acknowledged by either its Father, Photography, or its Mother, Painting, as a legitimate child. Yet, judging by the ever increasing demand and growing enthusiasm for it, we may say it is not an unwelcome addition to the family of the Muses. Snubbed by painters, treated with contumely by photographers, many possibilities are neglected by both.

The artistic instincts of picture lovers, their delight in color, the pleasure of seeing forms and outlines vitalized by color—these are the potent forces that are creating an insistent demand. From a purely educational standpoint the coloring of photographs is valuable training. It develops observation, a sense of color combinations, a perception of beauty as evinced in nature, and an ability to reproduce more fully on paper the functioning of the artistic and emotional mind. The child finding the photograph a ready and simple start is induced to try, and soon enjoys

the work, subconsciously developing a proficiency which may be of invaluable use in later life. Not infrequently a latent talent may be discovered through this means that might otherwise have been lost.

The commercial value of photo coloring is established. Commercial Photographers are more and more utilizing the selling force of colors in their daily business. Advertisers are specifying colored prints. The general public who hitherto looked upon mere photographs as things to make and give away, or to get for nothing, are paying good prices for tinted pictures of which they think well enough to frame.

Still our poor creature wanders in a cold world among the arts, unrecognized and quite unclaimed. Perhaps the waif may grow to hardiness notwithstanding. Not all are gifted with the creative power to paint free hand what they see, but anyone may learn to color what the kind Camera has been able to do in capturing the fleeting beauty of place, and atmosphere, and light; and, with the cultivation of eye and hand, and a certain sympathy that shall grasp the moods of Nature, may make pictures of great beauty. Things may be produced in this way that shall create the great pleasure of doing, and of having the beautiful.

Quantity Photograph Production as an Aid to Business

By Frank Becker

There have been two profound developments in the industrial world of recent years which have gone hand in hand, the one making the other possible. They have been the rapid and economical production of photographs in quantity and the introduction of the photograph as a sales agency in business. The wide-awake business man is now more or less alive to the economical and aggressive aid of the picture as a selling force, but he knows little as to how this force has been made available. To the average man on the street it is a deep mystery, and it is only in the scientific laboratories of the high-speed photo experts, where realization is found, that something new and powerful has been introduced in the field of business.

By a strange anomaly the photograph has found its highest exploitation as a salesman in the East, with the exception of the scenic postcards of the West, but it is in the West and in San Francisco that the best equipped plant for rapid-fire photographic production, in America, exists. This fact seems to be little known outside of photographic circles, since many of the largest coast concerns who have adopted the selling aid of the photograph, still send their orders to New York. Strangely too, a large part of the business done by the San Francisco concern is the filling of eastern orders.

Illustrating
"IS PHOTOGRAPHY AN ART?"

By FRANK SCOTT CLARK
Detroit, Michigan

Big machinery houses both East and West have long used the pictures of their goods in their sales talks, but it is only in recent years, very recently in fact, that manufacturers and jobbers of all kinds, from ladies' lingeries, coats and suits, hats, shoes to washing machines, in fact everything saleable, have resorted to the photograph instead of the sample trunk and the object itself.

But although it took the eastern jobber to discover this money-saving agency first, it took a San Francisco concern, aided by the invention of a San Francisco man to put the fine points on the production of this agency.

The J. K. Piggott Company has been a pioneer in the business and today their plant in San Francisco resembles nothing so much as a huge printing establishment where the product is millions of pictures a year instead of millions of sheets of printed matter. Indeed, some of their wonderful machines turn out pictures and printed matter at the same time with the printer's ink on the reverse side of the photograph. With all their equipment going at full blast they can make the astonishing total of 26,000 photographs an hour. The result is that the photograph is now cheaper than the lithograph and the photographic printing press is in the field to stay.

Perhaps the most interesting machines in this establishment are the two big Graber automatic printing, exposing and developing machines, imported from England where they were invented and manufactured. There are scarcely more than a half dozen of these machines in the United States. In a room flooded with light these marvelous contrivances are fed from huge rolls of sensitized paper, the negative exposed, the photograph developed, rinsed, fixed, washed and dried all in one continuous operation the while a printed story may be impressed on the other side. Going at full capacity each of these machines can turn out 4,000 postcard photographs an hour!

In addition there is the Blair machine, invented by a member of the firm, which can turn out 3,600 postcards an hour and can handle pictures as large as 10 by 12 inches. There are also six Simplex machines, invented by Blair, which handle big and little pictures, having a capacity of 2,400 each for the smaller sizes. The firm claims to reproduce from negatives or photographs furnished them, or to photograph the solid object. They handle any order beyond fifty reproductions, and although they print in black and white, can fill orders on many sorts of color work by tinting the monochromes.

The average layman, unversed in the intricacies of the advertising and selling game, will express astonishment at the need of millions of photographs. He forgets the prodigious number of scenic postcards sent out from hotels, parks and resorts all over the country. In one national park in this state, in season, as high as a million postcards are disposed of in one week.

But this is only a part of the business that is growing rapidly throughout the nation. It is the industrial photograph that is coming into its own.

One big Eastern jobbing house that keeps thirty salesmen on the road, selling ladies' ready-to-wear, used to provide each salesman with a truck load of trunks and it was estimated that it cost $1.75 each day to keep each trunk on the move. The salesmen now carry neat photographic folders, showing pictures of the dresses on living models, taken before a mirror, accompanied by small swatches of the material of which the dresses are made. That is all that is necessary. The firm has increased its business and has affected a saving of from $30,000 to $50,000 a year.

This is but one striking example of the use of the photograph which is being rapidly utilized in hundreds of different lines, the limits of which cannot be guessed. It is enough to say that with the advance of the photograph in business or publicity, California is well to the fore and equipped to meet any emergency.

"In the Path of the Storm"

By Thomas O. Sheckell

When the opportunity offers itself to me to go out taking pictures, I usually go on a "hunting trip" for subjects that will make a pleasing picture. Many indeed are the exposures that I have made on such trips that have never been printed.

When I was requested by Camera Craft to send a print for this issue of one of my Salon Pictures, I began rummaging through my portfolio to find one, and oddly enough the three or four best prints that I picked out were subjects that I had made after having definitely planned ahead just what I wanted.

I had this picture—"In the Path of the Storm" in my mind for some time before I made it. One summer afternoon I saw from my office window a heavy cloud forming and wind coming up which indicated a very severe summer storm. I left at the usual closing time and drove about twelve miles to make this picture. By that time the wind was blowing a gale and I could not keep my camera cloth over my head or for that matter, my tripod on the ground. I did, however, holding the camera to the ground, manage to make three or four exposures at 1/50th of a second on Eastman Portrait Film with a 5x7 Premo Special Camera and Goerz Dagor Double Anastigmat Lens. While I used only a portion of the film in enlarging, it is a straight print, requiring no dodging or spotting. I use a Verito Lens in enlarging.

I wanted it to show the movement of the trees and the path of the wind across the picture. It has been fortunate enough to pass the critical judgment of juries in 15 different Salons and Exhibits, being awarded a cash prize and two honorable mentions at times and hung in some of our most note-worthy exhibits.

"IN THE PATH OF THE STORM"
By THOMAS O. SHECKELL
(Accepted at Fifteen Salons)

Australian Salon of Photography, First Exhibition, 1924

By H. Cazneaux

The following article coming from Mr. H. Cazneaux, himself so famous a pictorialist, carries unusual interest to the votaries of pictorial photography. We are told that virtually the same text will appear at about the same time in the British Journal of Photography, our highly esteemed American contemporary, Photo Era, and Camera Craft. —Editor.

The First Exhibition of The Australian Salon of Photography was successfully held in Farmers' Exhibition Hall during April-May, 1924.

Over seventy Exhibitors contributed about one hundred and seventy works, comprising the efforts of about thirteen English workers, eleven from California, four from other parts of the United States, three from Canada, one from Scotland, four from Austria, one from Belgium and about thirty-six from Australia.

Amongst the Australian total I have included the five from New Zealand who had work accepted. The selection was most rigid, the ten Executive Members of the Salon giving impartial and careful attention to the great number of works submitted. The standard aimed at was high and the show gained in artistic value thereby.

It may be interesting to add that out of the above total of pictorial workers about twenty-eight had work hung in the London Salon of Photography 1923, but many others had work accepted at that show during previous years.

I am glad to add, that the Australian and New Zealand work held its place and suffered very little; perhaps somewhat in technique; by the comparison. One thing it did however; and that was to provide a sunny note throughout the show. In this respect the work from California stood out in a similar way. The English and Continental work with full, rich, and in some cases, low tones gave a richness and mellowness that together with the sunshine pictures made a most delightful exhibition.

Landscape was the dominant feature, but portrait and figure work were by no means lacking in numbers and quality. Charles Borup with "The Velvet Cap" reminds us somewhat of Whistler, but the portrait is strong enough to stand alone without comparison. In massing of rich tones, the clever accent in cap, this portrait was one of the favorites at the show. "After the Theatre" is more than a mere back lighting and spot light stunt. There is an atmosphere about this portrait that is fascinating.

Yet it is in "Souvenir of a Holiday" that Borup has scored. There is something sad (or is it merry?) in those shaded eyes under the hat, that appeals to the average Australian. Personally, I consider this portrait a fine rendering of difficult light and shade. In many hands this could easily have lost the exact balance that separates it from "hardness."

Cecil W. Bostock, unconsciously, has set us all thinking of D. O. Hill

again. "Portrait of a Boy with Dog" is a delightful child subject treated in a skilful manner. The rippling light on ivy and white clothing and the dark accent that the dog provides are all clever.

Monte Luke, Sydney, shows perhaps his best portrait in "Doña Inez." There is a richness of tone and expression that make it outstandingly good. His "Eve Grey" is already well-known.

"A Study" by Marian Lewis, England, exhibits graceful contours and decorative quality, slightly spoilt by the right arm throwing a deep shadow that projects beyond the left arm outline.

Lionel Wood, F.R.P.S., England, is strongly represented by "Friends of the Footlights" and "Group." Whilst possessing splendid qualities I must quarrel with the lower portion of "Friends of the Footlights." Why spare the trimming knife when the meaningless hand could be dispensed with and the print improved in spacing thereby?

"Athlete with Bow and Arrow," Mrs. E. L. Smith, California, is of etching like quality and texture and suggests that mystery background so loved by Doré.

Madame D'ora, Austria, sends two of her portraits in "Japanese Study" and "Madame Cartelliers," both clever in design and execution.

A. Chambers of Sydney with "The Fairy Moon" has seemingly allowed his artistic talents to run riot, as the print seems to suffer from hand work. The conception is splendid but the execution could have been improved upon.

In this respect, Louis A. Goetz does better, his print "The End of the Rainbow" suggests photography more than the studio. The idea is good but the print looks a little cold—Mr. Goetz, however, may thereby have suggested "The End" by this coldness.

J. M. Harting, U. S. A., proves that there is no need to deal in heads to provide portraits. His little print "Portrait, Howard Giles," shows an artist at work in a studio with model in background. There is a keen attitude about this artist and one feels that it is a characteristic portrait. Mr. Harting has given us pleasure in this charming work.

Two figure studies that are convincing are Douglas R. Hill's (of Sydney) "Youth," and L. St. T. Vernouille's "Gladiator." Both show perfect models and, perhaps, the "Gladiator" is stronger on account of its dramatic action; "Youth," however, is specially praiseworthy. Seldom have I gazed on such perfect lines and Hill has done his model full justice in every way. It is alive.

Mrs. Millie Hoops, California, provides a charming setting for her "The Practice Hour" which is a simple and straightforward piece of photography. Her "Chop-Suey" is complete and satisfying.

Adolf Fritz, Austria, spoils his otherwise clever, sketchy print by the rather isolated figure on right. One is oppressed with the fact that the camera has been to blame in catching this figure.

There are few dancing girl subjects; they are rare; at this show Alexander Corbett of England gives us the conventional layout and attitude

of this type, but he scores in real movement, which is not mere posing. Another dancing figure in the shape of still life deals with a Dresden china figure poised for the dance: a shaft of light suggesting "The Debut" effect. The arm of the figure poised high up and the little foot thrust forward give action to the setting. Portrait of "Norman Lindsay" and Mask and Model together with "The Debut" were considered the best of my own portrait efforts. Personally I should have liked to have moulded the Mask & Model into more imaginary effect, but photographically it must stand as it is for the critics to deal with.

"Waiting for the Train" by J. B. Pardoe, U.S.A., happily deals with the human element on a railway platform. The really fine work, full of pathos and sentiment, proclaims it one of the prints of the Salon. Straight out photography, it tells its story clearly and with artistry.

Amongst the Landscapes we were stirred with anticipation of famous overseas contributors to this Salon. We were not disappointed with the quality of the work or the whole though some could have been much better represented. F. J. Mortimer, England, with his "The Storm" and "An Eye for an Eye" left us with regrets, for we know some of the finer things he has done elsewhere. However, one is impressed with the strength and dramatic feeling that his tragedy of the sea portrays.

Another worker is 'Alex Keighley,' England. His work is also a household word amongst pictorialists here in Australia.

"The Chasm" with its richness of massing and tone; "The Turnip Field," "Dayspring from on High" which could have been taken here in Australia with its slanting rays of sunshine and "The Fisherman's Shrine," which apparently has had some working up on the barge all embody that richness of quality for which Keighley is famous.

I was conscious of a certain monotony in Leonard Misonne's (of Belgium) collection of works. Another thing that I could not understand was the apparent wooden and lifeless figures in some of his landscapes. In these cases the omission of the offending objects would have been an advantage. "Sale Temps," a work of more versatile outlook, was greatly admired, although the light on the road near figures seems to be a little forced. "En Ardenne"—here the figures look wooden; but in "Avant-l'Orage" Misonne reaches his true art. Richness of texture and bold masses with that peculiar light vibration that seems to radiate from the surface of his prints. I am sure that Misonne, if here in Australia, would give us some wonderful studies of our own wild oaks and scrub gums. I am positive he could show us a few points in their treatment pictorially.

"The Paths of Youth" by T. O. Sheckell, U.S.A., and "Sunlight in the Forest" by R. C. Lewis, California, exhibit similar composition and lighting effects. In the first named print the little figure setting out on the path of adventure and the use of the soft focus type of diffusion in the second named print provide the means of accent and effect.

J. M. Whitehead, Scotland, is yet another with whose work we are all familiar. His five landscapes give a fair idea of the beautiful quality and

simple lines on which his works are built. "Approaching Storm" with its rain cloud hugging distant hills, "After Many a Storm" with its classic sky and "Across the Moor" all depict that mood that is so entrancing in Whitehead's work. The over darkening of the sky corners of some of his prints seems a little obvious and in suggestive of old time methods to force pictorial accent.

The prints of P. Douglas Anderson of California were full of variety and expression; his "Californian Ranch" being of satisfying massing and a clever line of hill and fence was utilized to lead up to the homestead on side of valley. There is a marked similarity of subject and lighting in the Californian and Australian work. Plenty of sunshine is probably the cause. One could easily mistake some for the other. The English and Continental work on the other hand stand quite apart in subject and lighting the tones on the whole being full and fairly low. Years ago it was the fashion to simulate this work here in Australia with the result that Australian work got nowhere.

Pegg Clarke's (Melbourne) landscape "Mist in the Mountains" is a delightful and graceful group of gum trees seen through silvery mist. The setting does not suggest 'Mountains' however. Why the title?

George Chance, New Zealand, with "Sunlit Gums" lacks strength in left side branches and sky, otherwise it is full of dignity and repose.

The still life subjects of A. W. Walburn, England, were greatly admired. There is a subtle linking up of curve and line, combined with perfect technique in these prints of Walburn.

A. Wilkinson, South Australia, gives us remarkable work in "Overlooking the Plains of Adelaide" with its fine rolling distances. "Monarch of the Glen" suffers from over-insistance of detail and line, which rather overwhelms the principal object.

C. W. Bostock, Sydney, felt the dramatic moment when "With Limbs All Twisted," a rugged old gum's old and gnarled limbs stretch forth in defiance to the elements appealed to him. The suppression of detail in this instance and in "When the Day Was Young" by Arthur Smith (of Sydney) is reserved and praiseworthy.

Arthur Smith's Bromoil work is full of variety and in the above named picture and in "The Bowsprit" his subject matter is widely different. The treatment of the rigging on the Bowsprit is really clever. "The City's Towering Walls and Spires" suffers somewhat from flatness and loss of massing. The framework is there, it only needs some more pigment.

"The Moonlit Cottage" by A. M. Macdonald, New Zealand, suggests the full grey tones of real moonlight without resorting to under-exposed sun fake stunt.

S. W. Eutrope of Sydney, in "Winters Curtain" gives us pencil line outlines of branches set against the distance-tones of a bridge, it is a remarkably clever and difficult piece of work. I don't care for "Southerly Winds." There is too much of the 'sea-saw' effect in the two masses of tree groups. "An Out Back Australian Home" is clever and depicts the

amazing collection of milk cans and oil drum flower pots, all on an outback Australian shanty veranda with blazing sunshine.

"Winter Night" by Miss B. M. Gibson of New Zealand, exhibits sure handling of a night subject; the line of arch and curve of cab are cleverly related whilst the wheel tracks glistening in the electric light lead up to the inviting shelter of the portal.

"Venice" by F. Farrari, England, is spoilt by the middle distance gondola robbing the foreground gondola of its placing in relation to the distance. There is a charm of dark against light that makes it worthy of mention.

"The Lifeboat" by C. Upton Cooke, England, has an opal like quality. Some would like more dramatic action. It certainly looks peaceful to me, that going out or coming in.

"Out of the Past" by J. Kauffmann, Victoria, is quite different in treatment and character by comparison to the usual conventional Australian Cottage subject. There is a peculiar charm that is very attractive about this little print.

"Romance of Industry" and "Spirit of Pittsburgh" by O. C. Reiter of U.S.A., show strength and vitality. The massing and fine swing of line makes "Romance of Industry" outstanding.

"The Husbandman" by the same worker is a print of particularly charming technique.

"City Gleams" by H. Mallard, Sydney, fills one with the romance of a distant sunlit city as seen from sordid slum areas. A clever and well handled subject.

J. B. Eaton's work was quite up to the big things said about it a year or two ago. This Melbourne worker had six prints accepted and hung. His work has sunshine element and we can trace a certain novel composition here and there. One or two were a little heavy in shadow deposit.

"First Australian Troopships" by Late W. Fell and H. Cazneaux, Sydeny, depicts a Memorial Departure from Australian waters. The light in the sky gives the setting of seven transports on the ocean a promise of great things to come — the World knows now how Australians fought. Poor Fell gave us this picture and passed the Great Divide after giving his fighting share to his country. My own part in the affair was to look up the little vest pocket film and pay homage to a friend now gone.

"The Rocky Coast of Cornwall" and "Back From the Oyster Grounds" two prints by H. Bairstow of England, were favored on account of their perfect tone and textures. There was a finish and grip in this work that proclaimed the artist. His "Sunlit Corner," however, was more on conventional lines.

In conclusion I may add that the layout was on rather unique lines. Tables held panels, each 10 feet long by 3 feet deep, toned a deepish dove grey. The work, mostly on light toned mounts, was exhibited to the best advantage. The 21 panels found plenty of room and all undoubtedly proved the best show of pictorial photography held in Australia.

Adventures of An Amateur

By Dr. E. T. Baker, Moscow, Idaho

When I purchased my first kodak some years ago—a 2C with 7.7 lens, I hardly knew the difference between a focus and a fracas. If I were asked to suggest three courses that should be made compulsory as a part of the curriculum in every college and university, they should be photography, typewriting and public speaking.

By Dr. E. T. BAKER
Moscow, Idaho

So I grew to manhood blissfully ignorant of the joys and trials of an amateur photographer. I mention this so that you will realize that I was an amateur of the first rank, or, rather a rank amateur. My interest in photography dates back some years when it was imperative that I secure some illustrations for a book I was then writing. I had sent in an article along my line—I am a veterinarian—to a large agricultural journal, and in sending back a check the editor said he would gladly have paid more had I furnished several good, clear pictures. As I look back over the past fifteen years since graduating from college, it is with regret that I think of how many good photos "there might have been." My travels have taken me into nearly forty states in the Union, besides Mexico and Canada. Also, in my work as a practitioner, over 16,000 different cases of sick animals have passed through, or away, under my care. It will thus be seen that my interest in photography was not taken up through mere curiosity, but from a desire to illustrate articles written from time to time while conducting a general practice.

Another thing, a professional person does not have much time to devote to the finer phases of photography, for that is a life work in itself. He finds enough to occupy his mind keeping up with the latest advances in his own profession, and so he merely studies the camera-art enough to take fairly good snapshots. In fact, all my finishing is done by a professional, and a great deal of credit is due him for what little success has been achieved.

But our name is legion, and we are numbered by the thousands, we amateurs. On the highways, and in the national parks, and everywhere you will find us, equipped with every conceivable kind of apparatus from a dollar brownie to the most expensive camera made. We may not know much about the photographic art, but that bothers us not at all! We have the coin to buy our supplies; we snap everything in sight, whether in or out of focus, and later, when we proudly turn to a certain page in our album where reposes our special pride, we point to it and say with a nonchalant air: "That one is pretty fair, considering the light, but I've learned to snap 'em any old way now!"

Again, a snapshot is a clincher in describing any adventure or trip. A man whose veracity is beyond question told this stirring tale: "While hunting ducks in California I was using an old muzzle loader which had been loaned to me by a friend. I had just one charge of ammunition left, when five big mallards flew over my head, rather low. Putting the ramrod in the gun, I fired, and you can believe it or not, but I strung all five ducks on it. The recoil was so heavy that it kicked me back over a sage brush and I killed a nice, fat rabbit in my fall. In coming home, I misjudged a sand bar, fell into the water up to my waist, and when I climbed out, my boots were full of fish!"

Wouldn't several snappy photos lend weight to the above narrative? Suppose the explorer who was telling some friends about cold weather, had a postal card illustrating this one: "Why, it was so cold up in Baffins Bay in the winter of 1911 that all a man had to do when he wanted to come down stairs was to throw a bucket of water out the window and slide down the icicle!"

Now, while we believe these stories, yet it would ease our curiosity to see an actual photo of the occurrence, and, in the same manner, all articles are doubly valuable when illustrated.

Clear, glossy snapshots are the kind wanted, not commonplace, but to fit the article and to illustrate just what the writer is trying to tell his reader. In order to write so as not to be tiresome, you need only be natural, and your pictures take the place of gesticulations.

I had my 2C for some years, and procured some very good snapshots. My first attempts were not quite suitable for entering at the salons. The main thing that encouraged me at this period was the fact there was so much room for improvement. The man in the machine with half a head was one of the first attempts. Sitting in the car with a dignified look, the wife stepped back about forty feet and carefully adjusted the focus

for fifteen. The day was very bright, so she gave it a 25th, and left the stop where the salesman had set it when the camera was purchased. In taking the picture she inadvertently forgot to get all my head in the scene, but as she said the top part of my cranium would deflect the light of the most powerful X-ray outfit, the omission is hardly worth mentioning.

When we took the film to have it developed, the dealer explained more points in ten minutes than we had been able to figure out ourselves in two days. He told us to classify light into dull, gray, bright and brilliant. He added that we should use the stop around F11, and take most of the pictures at a fiftieth of a second. With the distance approximately correct, we should have very little trouble. We followed his advice, varying the speed from a 25th on dull days to 100th on brilliant ones. Here is a snow scene taken among the mountains of Idaho which, while not elaborate, shows that we made progress:

A favorable opportunity presenting itself, I purchased a 3A Graflex, with a 6.3 B. & L. Anastigmat lens. A friend of mine who is quite a camera expert, advised its purchase with the remark: "Just the thing for you, Doc; A Graflex don't need brains to operate." The amateur soon learns to disregard remarks like these and to consider the source from whence they come. But, in passing from a kodak to a Graflex, the writer found it sounded easier than it really was. True, it is very simple to put in a roll of film; adjust the shutter and tension; look at the reflecting mirror; adjust the focus until everything is as clear as church festival oyster soup, and then press the lever with the left thumb. Very simple! It was as clear as mud.

The first roll I took with this Graflex revealed a condition somewhat akin to a Balkan outbreak or a Teapot Dome investigation. The first negative did not show at all, because a mistake was made in the adjustment, and it was taken at 680th of a second, when a fiftieth was intended. Then, to make up for this mistake and to be real economical, two exposures were taken on number two. Getting confused, and fearing we had done something that should have been left undone, we passd up number three entirely. Number four was so over-exposed, it looked like a Kansas tornado, and we wound the roll so fast that we were several inches past number five before we could put on the brakes and shut off the gas. Number six proved to be a gem. The light was just right, the speed adjusted to a 50th, the stop at 11, with the exact focus, and it was really a credit to a beginner. My instructor assured me it was sign of almost human intelligence to be able to take a snapshot like number six the first time out.

Up to this time, such things as "focal length" and "depth of focus" meant nothing in my fair, young life. I asked a friend, who admits he knows more about photography than anyone, living or dead: "Why is a 4.5 lens twice as 'fast' as a 6.3, and a 6.3 almost half again as fast as a 7.7?" He replied: "Take the square of each one, and, using the smallest

number for a base, figure it out for yourself!" I found the square of 4.5 is approximately 18; that of 6.3 a little over 36, and that of 7.7 nearly 54. Inversely, let 18 equal twice that of 36 and three times that of 54. This is not a very scientific explanation, but it serves the purpose.

About this time a small book, called "Fundamentals of Photography" by Dr. Mees, came into my hands, and it certainly proved useful. Among photographic journals, "Camera Craft" has proven the most useful to the writer. There are other high class publications, but most of them are entirely too technical for the amateur. Chemistry, physics, diffused lens, and all that sort of information, while instructive to the professional, is absolutely Greek to me. Suppose I explained to a rancher that his cow had a "traumatic pericarditis," he would merely look bored, try to conceal his ignorance, and wonder what I was going to charge him for such "high-falutin" language. But when the condition is explained to him that probably a nail or piece of wire is working its way from the stomach into the heart-sac, he is intensely interested. "Camera Craft" caters not only to the commercial photographer, but gives to the amateur like myself, helpful hints in every number.

The advertisements in this journal are a very valuable feature. Many little booklets are issued by photographic firms that are well worth the reading. "Expert Camera Operation Made Easy," published by the Ansco Company is a gem. The writer of this little pamphlet was evidently an amateur himself once upon a time, and he explains camera operations in such a manner that anyone who can read may understand. "What Lens Shall I Buy" issued by Bausch & Lomb; "Photographic Lenses and How Made," printed by Harold M. Bennett; "Lenses for the Advanced Amateur" by the Wollensak Company; "Cooke Anastigmats" by Burke & James, and a host of others that are of interest to the studious amateur. Camera exchanges may have just the article you desire at a reduced price, and, from a buyer's standpoint, they are perfectly reliable. The tenderfoot, in reading these various advertisements and booklets is struck by the fair manner in which they are written. Competitors are not "knocked" by each other, but the general idea seems prevalent among all high class firms to see that the purchaser gets what he wants and needs.

Another thing, practically every make of kodak and camera will give good results when intelligently used. Just as a country kid, with a small sapling and bent pin, can often catch more fish than a city sportsman, all dolled with a two hundred dollar outfit, so can a cheap camera correctly used give good results. The size is rather immaterial, as a snapshot can be enlarged or reduced as desired.

With the advent of the auto and improved highways all over the country, amateur photographers will be more numerous than ever. They will be mostly concerned with these problems:

(a) What is the best camera and type of lens for my use?

(b) Proper exposure, speed and focus.

(c) How to get the best results from a snapshot.

VIII. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from April Issue)

CHAUNCEY M'GOVERN

For "enlarging" and for "contact printing" I also consider these tubes the best. The initial cost of the Cooper Hewitt tubes and stands is comparatively great. So is the cost of installation. On the other hand, they cost so little to operate; they do not break readily (with ordinary care); do not heat the room to excess; do not "burn out"; and the light they give out, while unusual to the unaccustomed eye, does not irritate the nerves of those who do much work by it, as does the regular "electric lamp". Such light is, of course, better for fotografy than natural daylight,—it being always the SAME QUALITY and QUANTITY, and being readily and surely CONTROLLED.

A saving of no inconsiderable worry, time and money will be affected by any fotografer installing any Mercury lamps, if he is advised in advance that no impression can be secured on any sort of film or plate which I have yet tried if there is used with these lamps an "F" color screen. It is my experience that to make negatives of subjects requiring this deep Red filter, one must use either daylight or mazda globes. A further fact I learnt from experimenting is that the SELECTION of any particular filter for any particular purpose must, generally, be done with a realization of the fact that filters used with Mercury lamps act quite differently, on similar films, than the way they act when used with daylight and other forms of illumination. No matter what length of exposure I have given panchromatic films, with "F" filters, the "development" showed up a 'blank".

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CAMERA CRAFT

Three different "sorts" of lighting—or "location of lights"—can be used to advantage in making fotografs and "Foto-MICROGRAFS" (negatives) of writings in dispute: 1. Oblique lighting; 2. Side lighting; and 3. Transmitted lighting. Just what sort of LIGHTING to use—and how—and what sort of FILM and LENS with each—may be estimated by listening to a few stories of actual cases to be recounted and illustrated on succeeding pages.

In making "copy" negatives of regular writing, the Cooper Hewitt lamps should, generally, be used in pairs: One lamp placed obliquely to right and another to the left of the object being fotografed. The tubes should be placed as near to the document as practicable, due care being taken that the WHOLE surface of the part to be negatived is EQUALLY ILLUMINATED. But the rays from each tube should INTERSECT the rays from the OTHER tube before the rays strike the object being negatived. Evenness of illumination of the tubes, as far as their ANGLES in relationship to the objectboard, can be learned thru focusing them thru a 12-inch lens, with the bellows extended about 2 feet.

Using "Side-Light" for Making Negatives of "Impressions"

When it is desired to make a negative showing INDENTATIONS of writing, or writing PROJECTING on the back of the paper, etc., and one wishes to use SIDE LIGHTING, the entire space between object-board and camera should be covered by the large thick focusing-cloth described in a previous paragraf, and all lights in the room extinguished as far as practicable. It is preferable that the work be done in the "darkroom" or in the "copying-room" at night time. After that there should be turned on the writing in question only enough light, coming thru a slit about an inch high and a half-inch wide, to actually show up the INDENTED AREA in the ground glass.

While any device for side-lighting will suffice, the one I use after years of experimenting is something I built for myself. It consists of a wooden box, 6 inches high by 6 inches wide and 18 inches long, with the top side so fitted into the four upright sides that it comes up and off with a flip of two fingers from each hand. The front side has a circular hole about 4 inches in diameter.

The box is screwed to the top of a piece of gaspipe, which fits into a second piece of gaspipe of larger bore, with a set screw in the larger pipe so that the inner smaller pipe can be lowered and raised at will. A regular 250-watt Mazda lamp is screwed into a socket placed at one end of the box, inside. A magnifying glass of 4½ inches diameter (13½ inch focus) is removed from its regular "handle" and held in the center of the box, facing the round hole in the front side,—the "holding" being done by two pieces of wood each 6 inches high and 3 inches wide,—each with a semi-circle cut out, 4½ x 2¼inches—which constitute a partition inside the box, to keep inside all light from the globe except what goes thru the magnifying glass and out thru the slit. (This slit being a hole cut in black paper pasted over the front side of the box,—the side with the hole of 4 inch diameter.)

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

VOL. XXXI San Francisco, California, August, 1924 No. 8

Mr. P. Douglas Anderson Retires

After a successful period in the Editorial Chair of Camera Craft, in which time and capacity he endeared himself to readers and added to an already large circle of friends, Mr. Anderson felt the urge to return to the pursuit of selling tangible things and so resigned from his office with this magazine. In his own words, he "Loves the Selling Game" best.

It is the privilege of his successor to credit the gentleman whom he succeeds, with all the excellent qualities that made him so popular and the writer hopes that the good feeling accorded the previous Editor, and the Editors preceding him, may be permitted to carry over to this new regime.

We ask nothing as a gift or on trust but declare that our efforts shall always be toward earning the best feelings and esteem of the readers. The policies of Camera Craft remain steadfast as a rock under the unchanged general management. The excellence of the publication is inbuilt and its standards too strongly established to be affected by changing individuals. But we propose to carry on as those before us at this desk have carried on, always to better and better things, doing each day's work in its time as well as is given us to do and trusting to the results to establish our place in the readers' regard.

To the personal friends already made and held over long years of interest in, and disinterested work for, photography and photographers, we send a promise—We shall from now on be able to do more, and perhaps do better things in the same cause, than before.

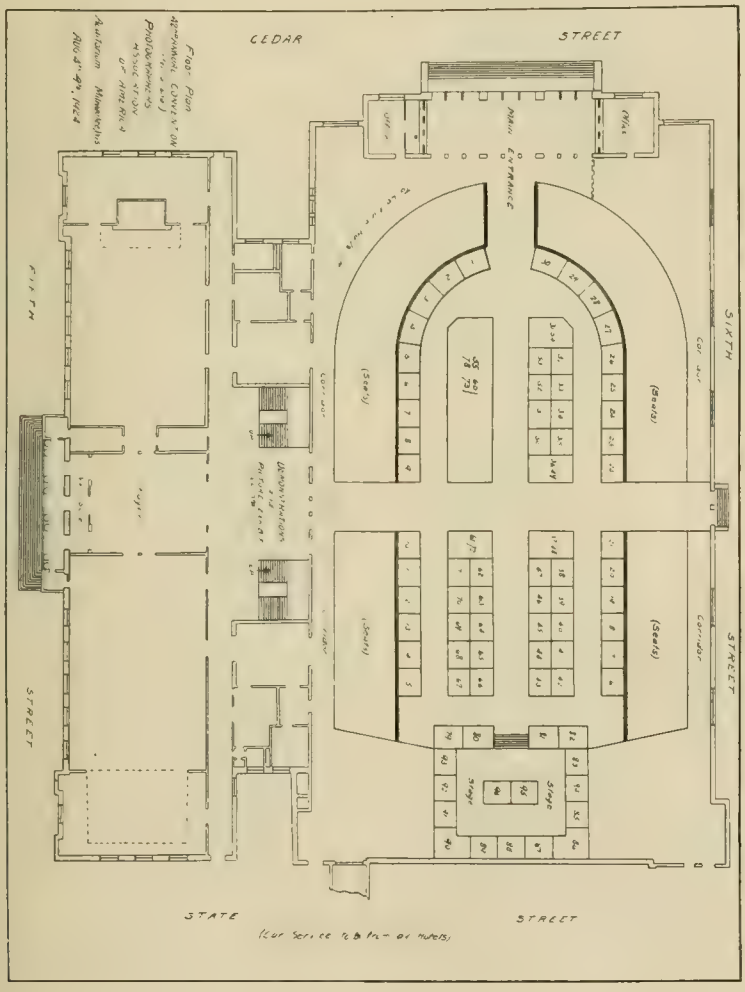
The Taste of the Reader

It is only natural that each reader should estimate the value of text from the basis of his own tastes. One of our subscribers after complaining about the amount of space given to professional matters says, "But in the past year you have published several articles that have been worth the subscription price." Others say that these very articles give them a broader and deeper view of things photographic. The professional reader, of course, is more than satisfied. Neither praise nor criticism shall slow our efforts to please and profit all and while we can hardly hope to be perfect, our aim shall be for that mark.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.



EXHIBITION FLOOR PLAN
Milwaukee, Wisconsin

The Value of Associations

The following words from a message to Photographers of America sent out by Mr. Clarence Stearns, President of the National Association, is so applicable to our Association that we reprint it here with a conviction that every reader will see its value to himself. —Editor.

Office of the President

February 15, 1924

TO THE PHOTOGRAPHERS
OF AMERICA—GREETING!

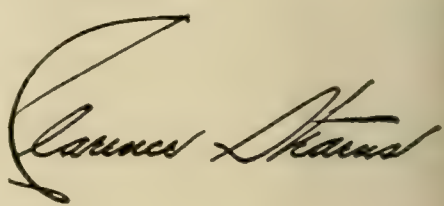
They have asked me to tell you what membership in this Association has meant to me—and I've agreed to try.

I value my membership in the Photographers' Association very highly. From it I have obtained those things which money cannot buy—friendships, inspiration, ideas that have made money for me through the years—a higher conception of photography as a profession. Attendance at the annual conventions alone would have justified the membership fee many times over—and the wide circle of acquaintances coming therefrom I regard as one of the priceless possessions of my life.

Every photographer who loves his profession—and BELIEVES in it—every photographer who wishes to lift the ideals and achievements of his profession a little higher, who practises photography both as a science and an art, guiding his business standards by the Golden Rule, should be happy to align himself with the Association.

We would welcome you to such membership.

Cordially yours,



42nd Annual Convention, P. A. of A.
Milwaukee Auditorium, Milwaukee, Wis.
August 4th to 9th

Realizing that the Photographer of the present day is equally interested in developing the Business side of his business, along with the Art side, the program for the Milwaukee Convention has been so planned as to give both an equal share of attention. A glance at the following list of notables will show how well President Stearns has succeeded in carrying out this idea.

Cliff Ruffner, Editor of Studio Light, will tell you how to attract patronage to your Studio.

Ross Crane has some ideas about decorating a Studio that will be well worth listening to.

Helen G. Stage will disclose some of her best selling ideas and tell you how to secure that extra order.

Ed Sheasgreen has been calling on photographers who have adopted Cost Systems and will give a resume of his experiences.

"Bob" Voiland will be there to give some simple rules for making better photographs.

Wilfred E. Smith of Chicago will show you how to photograph the ladies.

Walter Scott Shinn, well known photographer of children, will be there to give one of his demonstrations.

Orren Jack Turner is there when it comes to pictures for School Work and will tell you how he does it.

John Vanderpant comes from the West Coast with a real message and an Illustrated Talk on Pictorial Photography,

while George W. Harris of Washington will be on hand to give one of his inspiring talks.

Not to be outdone, the Commercial Section presents the following as their share:

Tuesday A. M.—At the main meeting, W. T. Dorward's talk on the Master Key.

Tuesday P. M.—A Get-to-gether Meeting of the Commercial Section with an address by President Stearns.

Tuesday Night, 8:30 Sharp—Pep meeting by Charles Kaufman at the Wisconsin Hotel. Every Commercial Man should be on hand.

Wednesday A. M.—Hostetler's Photographic Illustrations by Mrs. Robert Bushnell and J. B. Hostetler.

Wednesday P. M.—"An Hour with the Colors of the Spectrum" by George Hance for the Commercial Section.

Thursday A. M.—At the main meeting—A play entitled "The Old Methods vs. the New" by the Detroit Commercial Photographers' Association.

Thursday P. M.—Business meeting and the election of Officers.

Because of the splendid program that President Stearns is putting on don't think that the entertainment features have been overlooked, because they haven't. Both President Stearns and Mr. Reedy have gone over the ground thoroughly with the result that there will be the Officers Reception on Monday Night at the Hotel Astor, Tuesday Evening a theater party followed by a dance at a wonderful Roof Garden. Wednesday the ladies attending the Convention will be entertained at a luncheon given at the Yacht Club several miles up the lake, and Thursday Evening the Banquet at Gimbel's, where accommodations may be had for 1200.

To date the list of Exhibitors include the following:

Ansco Photoproducts, Inc.
Bausch & Lomb Optical Co.
Beattie's Hollywood Hi-Lite Co.
The E. N. Lodge Co.
Mallinckrodt Chemical Works.
Medick-Barrows Co.
Milwaukee Photo Materials Co.
George Murphy, Inc.
National Carbon Company.
National Lamp Works.
Norman-Willets Photo Supply Co.
PakO Corporation.
Photographic Machine Company.
Reimers Photo Materials Co.
Jas. H. Smith & Sons Co.
Sprague-Hathaway.
Sweet-Wallach & Company.
Taprell-Loomis Company.
Vicam Photo Appliance Co.
Wollensak Optical Co.

Desk Space

Abel's Photographic Weekly.
The Bulletin of Photography.
Camera Craft Publishing Co.
Co-Operative Photo Supply Co.
N. M. Swinney.

Be sure to get a railroad certificate **from your local ticket agent** to secure the reduced fare on the return trip. It will save 25% of the railroad fare.

Blum's Photo Art Shop.
Burke & James, Inc.
California Card Mfg. Co.
Callier Enlarger.
The Chilcote Co.
A. M. Collins Mfg. Co.
Cramer Dry Plate Co.
Defender Photo Supply Co.
Eastman Kodak Company.
Ficks & Company.
J. S. Graham Co., Inc.
Gross Photo Supply Co.
Halldorson Brothers.
The Haloid Company.
Hammer Dry Plate Co.
The Holliston Mills, Inc.
Ilex Optical Company.
L. M. Johnson Company.
Johnson Ventlite Co.
Larsen-Richter Co.
Fred M. Lawrence Co.

From the above list and the knowledge that these firms are always to be relied upon for things worth while, it may be accepted as a foregone conclusion that the exhibits will add to the programs in making this gathering of photographers one that will be long remembered. As Mr. Clarence Stearns, president of the association puts it, "If this Convention doesn't make and mark an epoch I am greatly mistaken." That is the feeling of all. Certainly the active souls in the undertaking are standing on tip-toe, withal they are pushing and shoving the wheel aggressively forward.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

The Monthly Meeting of the Photographers' Association of California

The attendance was surprisingly large. The Press Club was the place and not only was the dinner itself unusually good, but a stage and plentiful space made it possible to carry out the program with that ease which enhances any affair.

At the end of the dinner, Mr. Dassonville most gracefully introduced Mr. M. M. O'Shaughnessy, City Engineer of San Francisco, from whom the members in attendance heard a narrative of the inception, the carrying on, and the near completion of the Hetch Hetchy Project. The talk was informal enough but it carried the charm of romance, and Mr. O'Shaughnessy brought to bear such sincerity and earnestness as won the hearts of his hearers. Even statistics became interesting when presented as illustrative of action.

Our fellow member, Mr. H. B. Chaffee, was to have followed with the photographic rendering of the talk. A fuse blew out and Mr. Avenir Le Heart, author of a book on the subject, gave a talk on Coloring Photographs with Standard, or simple painters' oil pigments and demonstrated by transforming a bromide enlargement into an oil painting.

The better part of an hour devoted to this was profitable and intensely interesting. Space forbids a complete report but we give these outstanding excerpts as covering the high spots.

"In Portraiture it is the general position of the colors that determines whether the final results be good. One may not guess but must to a certain extent predetermine, and to do this one must study the portrait itself. Certain subjects require light handling, others more vigorous treatment. The graceful, sunny face of a child, for instance, should not be burdened with ponderous pigments."

"A colored photograph is nothing other than a painting with a camera-made drawing instead of by hand, and it should look like a painting. Anything more or less makes it nondescript. But while a drawing is mere outline, a photograph has soft shadows and soft high-lights, and it is essential that we preserve these in order that we may preserve the likeness."

"One thing in the art of painting is to know how to contrast the colors. Red contrasts with green, blue with red, yellow with purple, and so on. Color harmony is to be studied and applied."

"As I have said,—Every individual portrait has to be considered by itself. Here is a picture of a little girl with a light dress, which in my judgment, if it were a smaller print, should be colored in very light, dainty colors. But this has been very much enlarged, in fact, to life size, and it is seldom that you see a large painting in light colors. The large size portrait, certainly when it depicts only the head and torso, or even just the face and a bit of the bust, is massive and should be heavily colored. It is more appropriately expansive, more appealing to the eye."

"A very essential part of a picture is its background. In this case as the child's dress and eyes, as well as her hair, are light in tone the background should be dark. First, I use lamp black and over and into that I blend some blue, then mottle with an opaque white."

"Now as to building up a tint:—For the flesh I use white, yellow, and red. I put more light on the high-light side of the face, then darker red in the shadows. From these general effects I now proceed to details."

Mr. Le Heart showed how a stick and some cotton wool became a brush and how

kneaded rubber might be made to pick high lights, proceeding with these to illustrate the manipulation on the portrait which now looked like a true oil-painting.

Generous applause brought a modest acknowledgement from the artist and the fuses being once more in working order, Mr. Chaffee showed in motion pictures what the first speaker had drawn in language and fact. The movies pleased the attendance greatly and Mr. Chaffee received all that could be desired in approbation.

President Morton, after thanking those who had made the evening so pleasant as well as profitable, said:

"I wish to state that there are two exhibits of pictures to be remembered, one at the National Convention and the other at Portland. Mr. De Gaston is the chairman of that committee."

Mr. De Gaston: The twenty-fourth is the date when the pictures must be in at Miss Reed's office in the Claus Spreckels Building.

President Morton: I want to add a word to that, urging you to send in your exhibits at once. We do not want to go to Portland with no exhibits.

Mr. Lancaster: The pictures should be in duplicate if possible, so that we can send in the Portland exhibits at the same time as those for the National.

President Morton: All of us must arrange our own transportation, as it is too late to arrange a special date for the boat. Will you all, please, send in a notification of how you are intending to go, whether by boat, rail, or motor. I wish to add our thanks to Mr. Chaffee for the moving pictures, and to Mr. Terkelson for getting our dinner at the Press Club.

P. N. W. Association News

PORTLAND, THE CONVENTION CITY

AUGUST 25TH TO 28TH INCLUSIVE

C. F. RICHARDSON, Secretary, Milwaukie, Oregon

The Photographers on the Pacific Coast west of the Rockies are cordially invited to attend the convention at Portland, Oregon, August 25th, 26th, 27th, and 28th, 1924.

The Portland Convention Program

The plans of our Northern brothers show a remarkable effort to give visitors such a good time as they have never had at any similar gathering. The program speaks for itself.

Monday, August 25th, 1924—Opening Day.

9:00 A. M.—Hall open for registration.

9:30 A. M.—Formal opening of Convention by President J. A. Zinn, Jr., of Seattle, Washington.

9:45 A. M.—Singing of one verse each of the National Anthems of the United States and of Canada.

9:50 A. M.—Address of welcome by the Hon. Geo. L. Baker, Mayor of Portland.

10:00 A. M.—Address by President Zinn, followed by the introductions of, and short addresses by our distinguished visitors.

Appointment of a special committee to consider the possibility of forming a Pacific Coast Association.

11:00 A. M.—Meeting adjourned for the purpose of viewing the Conventing Exhibits in detail. Remember those who support this Convention.

Noon recess—Henri Thiele will serve Luncheon in the hall Sixty cents per plate. **Note:**—The judging of photographic exhibits will take place between 11:00 A. M. and 1:00 P. M. Kindly do not disturb the judges.

1:30 P. M.—"The Business Side of Photography" by Mr. Sigismund Blumann of California, Editor of Camera Craft. It is with great pleasure that we present Mr. Blumann, and we trust that everybody will be on time. (Courtesy of Camera Craft)

2:15 P. M.—"A Little Lesson in California Propaganda" by Mr. Harry Main.

Mr. Main made his reputation photographically at the National Convention in 1923.

2:45 P. M.—"Pictorial Photography" by our Vice-President, Mr. John Vanderpant of New Westminster, B. C., Canada. Mr. Vanderpant will repeat his talk given at this year's National Convention.

The manufacturers exhibiting have come many miles, not only to support this Convention, but to show you their latest products. Patronize those who support your Convention.

Notice to Manufacturers:—The entire Convention Hall will be open to the public every evening free of charge. Please arrange attendants for your Booths, during the hours of eight to ten-thirty.

Evening Entertainment

7:00 P. M.—Banquet-Entertainment at the "Arcadian Gardens," Multnomah Hotel. After this Banquet, the entire party is invited by Mr. Paul Noble to the Liberty Theatre for a special showing of a feature film.

Tuesday, August 26th, 1924—Second Day.

9:30 A. M.—Shall the Northwest Association Consolidate with the California Association, thereby forming a Pacific Coast Association? Report of Committee.

Mr. Clarence Stearns, President of the Photographers' Association of America, will be Chairman of the Convention during this discussion.

Appointment of the following Committees: Nomination; Next Convention City; Official Publication; By-Laws and Charter. Special Committees.

10:30 A. M.—A demonstration by one of the greatest photographers of our present day, Mr. Frank Scott Clark, of Detroit, Michigan.

Noon recess—Luncheon will again be served in the hall.

1:30 P. M.—"A Message Direct from the National Convention" by President Clarence Stearns of Rochester, Minnesota.

Vocal Solo. Mr. Stuart McGuire.

2:00 P. M.—Mr. M. P. Kirkpatrick of Seattle, Washington. Now is the time to see just how "Kirk" makes his beautiful pictures. Mr. Kirkpatrick will feature portraits and grouping in his demonstration.

2:45 P. M.—Mr. Main, the versatile gentleman from California, will entertain us for a few minutes.

3:00 P. M.—Lecture, Mr. Ralph Young of San Francisco. "Human Interest in Photographic Illustrations". This is of intense interest to every class of photographer.

Evening Entertainment

8:00 P. M.—Dancing, Singing, Entertainment. On the "Barge Swan". Please be on the boat (Swan) promptly at eight o'clock. East Approach to Morrison Street Bridge.

Wednesday, August 27th, 1924—Third Day

9:30 A. M.—Report of the judging of Photographic Exhibits. Report of all outstanding Committees. Election of Officers.

President Clarence Stearns presiding.

10:30 A. M.—"Development of a Commercial Organization" by president LAURENCE B. MORTON of the Photographers' Association of California. Commercial men will profit by just what Mr. Morton has to say. All commercial photographers present at this talk will be guests of the Commercial Photographers' Association of California at dinner, six P. M.

Noon recess—Luncheon served in the hall.

1:30 P. M.—Talk and Demonstration: "Home Portraiture", by Miss Kathleen Dougan, one of California's leading Home Portrait Artists.

2:15 P. M.—Vocal Solo. Mr. Paul Davies.

2:30 P. M.—"What the Advertiser Must Have From the Photographer". Mr. Charles Bowen of Seattle, Washington. Do not miss this.

3:00 P. M.—"Ethics" — Mr. Sigismund Blumann. (You know it will be good.)

Dinner Recess

Evening Entertainment

8:00 P. M.—Very special entertainment at the Baker Theatre, 11th at Morrison Sts. Note: This is the best show ever given in Portland. Do not miss it. Bring your friends.

Thursday, August 28th, 1924—Last Day

9:30 A. M.—Installation of newly elected officers by Mr. V. V. Vinson, of Vancouver, B. C. Canada.

10:00 A. M.—Another good talk and demonstration by Mr. Frank Scott Clark.

This will be entirely different from his talk on Tuesday.

10:45 A. M.—"Amateur Finishing". This attraction has been needed for several years and it is a real pleasure to present Mr. Albert Schneider of Portland, Oregon.

11:00 A. M.—Mr. E. L. McDougall, Attorney-at-Law, of Portland, Oregon, who has been appointed head of the legal department will outline the law covering "The Display of Photographs by the Photographer". This is a serious matter and we should all become acquainted with it.

11:45 A. M.—Last but not least, our loyal supporter, Miss Ida M. Reed, General Manager of Camera Craft. She has been of wonderful assistance to your officers, and we appreciate it.

12:00 Noon—Farewell addresses by President Clarence Stearns, of the National Association; President Laurence B. Morton, of the California Association; President J. A. Zinn, Jr., of the Northwest Association, and C. F. Richardson, Secty. Treasurer, the man whose work made this convention possible. We thank him.

Noon recess—Luncheon will be served in the hall.

Afternoon Entertainment

1:30 P. M.—Columbia River Highway Trip, free to all attending the convention. Compliments of the Portland Photographers' Association. The automobiles will leave the Civic Auditorium at 1:30 P. M. sharp.

Note: Entertainment subject to change from the platform.

Rules Governing Photographic Exhibits 1924 Convention, Portland, Oregon

1. The prints exhibited by members of both the California and Pacific Northwest Associations will be hung and judged as two separate groups. All regulations however apply equally to the members of both bodies.

2. All prints must be mailed to Secretary C. F. Richardson, Milwaukie, Oregon; said to arrive at his address on or before August 22nd. Those wishing to deliver their prints in person may do so on Saturday, August 23rd, at the Civic Auditorium, Portland, Oregon, between 10 A. M. and 6 P. M.; however, prints received later will not be hung in time for the judging.

3. Please mount all prints on "ART CARD", **do not frame.**

4. Prints must be entered in the following classes: 1. Man. 2. Woman. 3. Child. 4. Group. 5. Home Portraiture. 6. Pictorial. 7. Commercial. 8. Advertising. 9. Illustrative.

5. Each member may enter not more than five prints but not less than three prints. These may be divided into the different classes to suit. The Pictorial class is excepted from this rule and may be entered with five prints over and above the other five prints allowed.

6. No name shall appear on the front of the prints until the judging is over. The **title,** if any, may be written under the photograph.

7. Write your name and address; your association; the CLASS you want your print entered in; **on the back of each print.** Please state the number of prints you are exhibiting.

8. Salon Honors will be awarded in the form of ribbons for first, second and third places in each class; also three honorable mentions will be awarded in each class.

9. Three members of the Northwest Association will judge the California prints; three Californians will judge the Northwestern prints. Commercial classes will be judged by commercial photographers and Portrait by Portrait Photographers.

10. The judging will start on the opening day of the convention; the results will be officially announced as soon as possible. If desired you may write your name on your print after the official announcement is made.

11. **Remember:**

A Convention registration Fee will be charged at the door of the convention in accordance with the By-Laws of the Photo-

graphers Association of the Pacific Northwest.

Studio Owners Attention—A Convention Registration Fee of five dollars shall be paid at the door of the convention, subject to a discount of 50% provided such owner sends an exhibit of at least (3) prints to that convention.

Note: This registration fee is in addition to yearly dues. No photographer will be admitted to the convention unless he is a member of the Northwest or California Associations. Employees **do not** pay a registration fee.

Guests of photographers attending the convention will be requested to pay a registration fee of one dollar for each guest.

Membership Dues Northwest Association

Studio owners $5.00; Employees $3.00; Dealers and manufacturers, etc..$2.50.

California Association Members

will be requested to pay the minimum registration fee of $2.50 at the convention door. Guests $1.00 each.

Judges

For the California Exhibits:

(Portrait Classes)

Mr. H. U. Knight, Victoria, B. C. Canada, Chairman.

Mr. Wayne Albee, Seattle, Wash.

Mr. Charles Butterworth, Portland, Ore.

(Commercial)

Mr. C. F. Todd, Seattle, Wash., Chairman.

Assisted by two others of his selection.

For the Northwest Exhibits:

(Portrait)

Mr. Sigismund Blumann, Fruitvale, Calif., Chairman.

Assisted by two others of his selection.

(Commercial)

Mr. Ralph Young, San Francisco, Calif., Chairman.

Assisted by two others of his selection.

For the Professional

In the Interest of Commercial and Portrait Photographers

THE STORY OF HILDEBRAND

Famous Photographer of Farm Animals*

As Told to

A. F. Donaldson

With Illustrations by Robert Hildebrand

"Bob" Hildebrand, the most famous photographer of livestock in the world, says that taking pictures of live animals is like watching another man hoe corn—it looks a lot easier than it is. And Bob ought to know, because he has photographed plenty of them—somewhere around 100,000, in the twenty-three years he has been at it. He needs no introduction to you readers of Farm and Fireside, for his pictures have appeared in this and every other farm publication in the country for years and years.

Hildebrand has a big studio in the heart of the Union Stockyards district of Chicago. He is official photographer of the International Livestock Show, and he has personally taken pictures in every state of the Union. He also has a New York studio. When I saw him there the other day I asked him to tell me something about how he got started, and some of his experiences.

"Well," he said, "as a kid I was always fooling with a camera. I took pictures of everything in sight, and developed the negatives in the bathroom at home, hanging a blanket over the window to make it dark. One day, in lighting my red lantern, the curtain caught fire and I had a fine time putting it out. When Dad got through I could hardly sit down for a week, but I kept right on making pictures.

"When I was 16 I got a job in a Chicago railroad office during vacation. Like many other boys, I got bull-headed and wouldn't go back to school when vacation was over. After working in this office for several months, my brother Lewis, who was and is now business manager of the 'Breeder's Gazette,' telephoned me that it was 'about time I quit fooling around and

*Courtesy of Farm and Fireside.

ROBERT HILDEBRAND

ame to work for the family.' So that's what I did. You see, Alvin H. Sanders s my brother-in-law, and he is the owner and editor of the 'Gazette.'

"I started to work for them in 1900, just as an apprentice. I found in the Gazette' office a dark-room which had been fitted up by Mr. Sanders' brother Rolland, who had died just a short time before, but since his death there was no one about the place to use it. Lewis suggested that I might as well use the dark-room and see what I could do in making some pictures for the paper to print.

"That's really how I got started in the work I've followed ever since. The story of my early experiences and disappointments are amusing as I look back upon them now. I thought I knew how to take pictures, but found that when it came to livestock what I didn't know would fill a library. Getting good animal pictures seems easy—it looks like a cinch to the other fellow—but when I tried to do it it was harder'n Hades.

"Shortly after I 'went to work for the family,' I was assigned to take pictures at the Iowa State Fair. I came back to the office all elated over the bunch of fine, sharp negatives I had made. I'll never forget those pictures. I was sure the editor would give me a boost in salary as soon as he saw them. He saw all right—he and the waste basket got acquainted with all my negatives within five minutes! The explanation was simple. The posing was rotten. I had taken all the champions, but I didn't understand how to make the prize-winning points show up.

"From that time until now I have been making a study of how to pose animals. Posing is the big secret of success with animal pictures. I will try and tell you how I get the animals to look the way I want them to.

"First of all, the man at the camera must know the points that are supposed to be shown up to the best advantage, and pose the animal accordingly. Then he must be able to win the animal's confidence, so that it may be brought to the point of standing before the camera in a natural manner. Photographing animals is just like photographing children—it requires gentleness, patience and tact. Of course, we don't hold up a canary, or shake a rattle to get the attention of a Shorthorn bull, but we use the same principle. To arouse the animal's interest we have to resort to anything, no matter how absurd or outlandish it may seem to an onlooker. Sometimes it takes hours to get the right pose, and many negatives are often spoiled before I get the one that suits.

"'The tricks of the trade' are many. The first one is to lead the animal around the camera in a circle, to get it over being frightened at the strangeness of it. Then the man at the halter stops in front of the camera, and the work of getting the feet placed in the right position begins. I note the contour of the ground, and place the feet so as to make the back present a perfectly straight line. We take great pains with the details, often moving the feet only an inch. Sometimes when a foot is lifted the animal will not return it firmly to the ground. An assistant usually tickles the animal in the ribs on the off side; this generally causes a prompt shift.

"With the body in the right position, the next job is to get the head up and the attention fixed. This is the hardest job of all. While I stand at the camera ready to 'shoot,' one man stays at the halter, while someone else does something to make the animal look up in the right direction. The things he does to accomplish this would qualify him as a 'stunt' performer in the movies. Some animals, especially beef

cattle, keep their heads down and take no interest in their surroundings. Our stunt artist waves his arms in the air and walks toward the animal with a mooing sound. Sometimes he will wave a newspaper and snap his fingers. Next he may try blowing an auto horn or throwing his coat over his head and dancing about like a crazy man. Another stunt is to jump out from behind a tree or the corner of the barn. I have had men who would even stand on their heads and kick their heels in the air.

"If these 'ground tricks' fail, the next move is to climb a tree or a fence and make a noise that will get the animal's head up as high as we want it.

"Of course, in working these tricks we have to be careful not to frighten the animal too much or we lose the pose and have to get set all over again. Maybe, after we have tried everything we know some other animal, or a child, will walk by, and instantly the head goes up for a look at the newcomer and I get just the pose I want. You never can tell what is going to excite their curiosity.

"Things would have been a lot easier for me if I had known all these points when I started in for myself after leaving the 'Gazette.' But I had to learn by experience. I left the 'Gazette' during the panic of 1908 with just $175 in cash. With this I got married, and opened a studio of my own. The 'studio' consisted of a big room in an old frame building in the stockyards, which I rented for $10 a month from A. G. Leonard, president of the Union Stockyards Company. I hired a man to do the inside work and I went out after business. Starting as I did in the spring, when no shows are on, and being the year of the panic besides, business was hard to get. Sometimes that $10, when I didn't have it, looked like a million to me, and I was often months in arrears. But that fall I did well at the International, and by the following spring I had my debts paid, and things were coming my way."

"Have you ever been in any danger in getting your pictures?" I asked.

"Not often. I was never afraid in my life, but I have had some exciting times. One time I photographed a ten-year-old Holstein bull through a knot-hole in the fence. He was so wild and unruly that his owners couldn't handle him with a rope, so he was turned loose in an exercising pen with a seven-foot board fence around it. I handled the camera on the tripod, sighting through the knot-hole, while two of my men got on top of the fence. One had a small hand camera to take shots from above, and the other had a long pole for driving the bull into focus. Once he plunged toward the man with the pole and

nearly broke his leg. We used up a dozen negatives, but failed to get a good one. The only way I succeeded in that case was by taking half of two pictures and piecing them together. The result, however, was the only satisfactory picture ever made of that bull.

"Twice in my experience I have been knocked over. Once was when I had been called to photograph another Holstein bull and fifty of his daughters. I got him all right, but when the first heifer was led out she was so wild it took seven men to hold her. Just when we thought we had her about right, and the men let up on the ropes, she made a straight dash for the funny-looking black box on the tripod that had scared her. The next thing I knew heifer, camera, and myself were all mixed up together. By the time I got up she was gone.

"The other time was when I tried to get a ram and a ewe in an open field. I had my head under the black cloth trying to get the focus when I noticed that the ram had disappeared from the picture. In a little less than a second, however, I found out exactly where that ram had gone. He broke every leg of the tripod as he crashed through to where I was. I'll never forget that meeting, although memories of it are less painful now."

In addition to taking "still" pictures, Mr. Hildebrand has had a great deal of moving-picture work to do. A few years ago he made several thousand feet of film for a big Chicago packing company, showing every step of the meat-packing industry. He is now expanding this branch of his business, and will cover every phase of agricultural life. The perfection of the home projector, he says, has made it practical for many people to have moving pictures made of their own home and farm life, to be shown in their home and preserved for their grandchildren to see.

"The family album of the future," he predicts, "will be the motion-picture screen in the home."

The Amateur and His Troubles

Conducted by Sigismund Blumann

Looking Ahead

The greatest difference between the amateur and the professional in the practice of photography seems to be that the former cares little how much material he wastes, trusting to chance to bring him an occasional masterpiece, and the latter works according to definite knowledge and precise rule to avoid the losses inevitable to experimentation.

Be it known that this law is without exceptions: The same materials used in the same way, under the same conditions must give the same results. There may be a hundred wrong ways, and maybe a dozen ways that will serve a purpose, but there is only one best, one exactly right way.

Manufacturers having highly paid chemists, and knowing the components of their products, may be accepted as knowing; also, how to use what they market. Their interest is in having the user succeed. Therefore, before indulging in search for better methods of your own master the directions thoroughly, succeed with them, and then travel onward into newer roads of compounding and manipulating.

So, in the future, we shall try to make this department rich in new things and in things not new but probably forgotten, trusting that the reader will keep the above in mind before rushing into search for novelties. There is such a charm in experimenting, and the pleasure is worth the time and material, those who love photography for itself often feel justified in devoting most of their endeavors along such lines. It is an indulgence that should be moderated and tempered with judgment. Progress lies in mastering what

other men know and in then carrying the banner of knowledge onward.

If those who are interested in this department will keep the copies of Camera Craft, they shall have accumulated in the course of a year a mass of information, gathered from current and out-of-print sources, from native and foreign publications, and from the more direct talks of the Editor with many men. Moreover, this information shall be in orderly sequence and shall comprise to all intents and purposes such a text book as may not be found in the shops.

To this end it is hoped that photographic enthusiasts will write and give their views and submit such things as they have discovered or have read which may help their fellow workers. Where such material seems to be original credit shall be given to the sender.

This is your magazine, dear reader, and this is your especial department. Let us put our shoulders to the wheel and make it what we want it to be.

Printing to Size

Probably the most important inquiry of the amateur photographer when he goes to purchase his first outfit is about the class of the instrument. The next, doubtless, is the size. For the rank novice, perhaps, the small sizes are as good as any for he will take little interest in composition until he advances materially. But with advancement comes a desire for improvements of many kinds. Indeed these are the logical results of photographic progress. The admonition of the Eastman Company to "Trim, trim, trim" is wise and timely. They make this impressive by showing a picture with much uninteresting foreground and illustrate the improvement when this non-essential portion is eliminated. I am very partial to a 4 by 5 size for general outdoor work, though perhaps I use my $3\frac{1}{4}$ by $4\frac{1}{4}$ more than any other. But whatever the size, it is rarely the case that all of the negative should be printed. But why **trim?** Why not compose in printing and thus have nothing of the finished print to eliminate? Now I do practically all of my trimming with my printing frame. I use the Kodak Auto Mask frame and find it eminently satisfactory. I presume there are devices as good of other makes. Whether I use my 4 by 5 or $3\frac{1}{4}$ by $4\frac{1}{4}$, I do some eliminating on practically every negative I print. I place my negative under the mask of this frame and move it about, turn it around and change it every way imaginable until I get what I deem the best composition of which the negative is capable. I thus have the usual small white border whereas, were I under the necessity of composing my picture by trimming, this would not be the case. Unless one has ample time and facilities for satisfactory composition before exposing the negative, either trimming or masking as I have indicated seems to be necessary in order to obtain desirable artistic or pictorial effects. Usually, the 4 by 5 prints are masked down to about 3 by 4 or $4\frac{1}{4}$, and generally lose from half to three-quarters of an inch from the top or bottom or both. It is patent that this process is by no means intricate or difficult. Slipping the film under the adjustable masking device of the printing frame, it is easy to move it about until I have gotten by reduction of the two sides of the negative all that will go to making pictorial or artistic effect. The film may be viewed by holding the frame to the light while adjusting it to the desired position. This modification of size leaves out of consideration questions of enlargement and perhaps to a considerable extent, reduction. I am discussing contact printing exclusively and find in practice that no two pictures, as a rule, should be made precisely the same size with reference to length and breadth. It is true that uniformity must be sacrificed by this method of printing, but it is better to have merit and beauty than a rigid uniformity of dimension.

Try This

Before bleaching in the Ferricyanide Bromide Solution when Toning by redeveloping, soak the print in a very dilute SulphiDe (not SulphiTe) solution. Wash well, then bleach and proceed as regularly. The improvement in the final tone will astonish the worker. This is an old, well known, but seldom practiced means of getting better browns than the commoner procedure offers.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

Should ANY Bromide Be Used With Amidol Developer?

It is a matter of common experience hat excessive use of bromide or dilution of amidol developer is liable to produce lirty grey instead of clean black tints in romide prints. In the effort to avoid this esult and at the same time to avoid the isk of blotches which arise when the mage flashes up before the developer is venly distributed over the surface of the rint, I have arrived at some results which ertainly seem interesting. The method dopted has been to test the developer by vatching its action in blackening up a est strip of bromide paper in ordinary aylight.

For developing six enlargements from ¼-plate on 8½x6½ I weigh out 5 to 65 r 7 to 65 grains amidol and sulphite and issolve sulphite first in an ounce or so vater, and if the paper is apt to come smudgy" I am now adding a small crys- al of hypo (vide "B.J.A.," 1915, p. 479, by . J. Mortimer). I put some water in the eveloping dish, add most of the amidol olution, reserving a little in case of nder-exposure of prints, put in a dash f bicarbonate of soda (recommended as estrainer with amidol in "B.J.A.") and egin diluting with water bit by bit, test- g each time by a slip of bromide. At rst the test strip becomes considerably rey in the first 5-10 seconds and fully ack in 30-35 seconds. In the next stage dilution 10 seconds gives only a light ey and blacking is complete in about 40 conds. I am now diluting further, till ry little happens in the first 10 seconds more, the test slip is only a very light ey between 20 and 30 seconds, but after seconds it quickly blackens and is of a irly vigorous black at 50 seconds to 1 inute. Even with further dilution, or hausted developer, I find that clean acks can be obtained with prolonged development. Taking the solution to the dark room and employing it on six 1/1 enlargements that have been soaked in water and placed back to back in pairs, I find that with proper exposure the image appears after turning the prints over and over about 30 times, but with 50 to 100 turns vigorous shadows are obtained. With less dilution the image darkens up much more quickly and there is a great risk of taking it out of the developer when the shadows are still a dirty grey. After working on these lines I measured the quantity of mixed developer used, and found that the 5-65 amidol-sulphite mixture had been diluted with from 6 to 8 ounces of water instead of the 2 ounces recommended in orthodox formulas.

If these results are in any way corroborated by the experience of other workers, they tend to indicate that if no bromide at all is used, mere dilution with water acts as an efficient restrainer, when coupled with the addition of a pinch of bicarbonate of soda, and a hypo crystal not exceeding the weight of amidol. Indeed by this method, combined with short exposure, contrasty bromide and the use of a yellow light-filter placed over the lens of a daylight enlarging box, I have succeeded in getting from very weak negatives results not far short of those previously obtained by enlarging on to gaslight instead of bromide paper. Of course this plan involves the risk of under-exposure, and the attempt to force up development by increasing the strength of the developer in the later stage is liable to lead to stains. So far as I can ascertain these stains are due to the effect of the weak light of the dark room when the print is examined too frequently or for too prolonged a period too near the lamp. In a test experiment in this connection electric light was turned full on while a test slip was still in the developer, with the result that the high-

lights stained a dark yellow brown. This stain was unaffected by ordinary alum and hydrochloric acid, but chrome alum and hydrochloric (see "B.J.A.," 1923, p. 440) removed it with prolonged soaking, how permanently I cannot say. But there are other stains which cannot be removed in this way, particularly on negatives which have been rushed out of the hypo in order to stop frilling in hot weather, and such are often found in Kodak films developed in hot weather by Italian dealers. I think it would be very useful if instead of the mere formulas which are published from time to time in the "B.J.A." we could have a more systematic attempt at classification of stains arising from different causes, the chemical actions involved in them and the corresponding counteracting effects required with the means of producing them. Surely it is by no means an uncommon experience for a negative of a subject which cannot be taken again suddenly and quite unexpectedly to start stripping when taken out of the fixing bath. Is there no alternative but to frantically deluge it with alum, press the wrinkles down, as a rule unsuccessfully, and make some attempt at drying when the conventional "washing for an hour in running water or in frequent changes" would be quite out of the question? G. H. Bryan, in B. J. of P.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

The Annual Exhibitions At The Brooklyn Institute

The month of April was devoted to the annual exhibitions at the Brooklyn Institute. During the week of April 7th, the combined work of the beginners and advanced classes taught by William H. Zerbe filled the walls. Mr. Zerbe always makes great efforts to have his class members try all the different processes as he teaches them, feeling that if they try them while the first enthusiasm is fresh in their minds, that the novice will be more apt to continue working in process. This was shown in the exhibition by the variety and technical excellence of the prints hung. Carbon and carbro predominated and their varying colors lent themselves particularly well to some lovely autumn landscapes and sunset reflections. Among new workers were noticed Mr. Whitehead with several interesting scenes in the New York Subways and Mr. Sanchez with some novel still life effects.

The work of pupils of Miss Sophie Lauffer, was shown the week of the 18th and included 117 prints by 33 exhibitors, in 11 processes. Particular stress had been given to composition during the lessons and at the portrait sessions, which resulted in some very artistic work being shown, particularly in portraiture and dancing pictures—Bromide prints predominated but a good many had tried different processes and there were good examples of bromoil, carbro and carbon, gum palladium, transfers, artatone and kallitype. Both the classes have accomplished a great deal and their first motive is to get people to try the "pictorial processes" until a medium is found which the worker most enjoys and which helps him to produce pictures that give him pleasure.

The 34th Annual Exhibition of the work of numbers of the department opened April 28th. The show was well up to the standards of the department and included 80 prints by 37 exhibitors in the customary variety of subject and process and showed for the first time the work of several promising newcomers. The exhibitors and number of prints were, Wm A. Alcock (3), J. W. Aughiltree (3), J. M Bergen (3), R. M. Coit (2), Thos. Blake Jr. (1), Katherine Bruckerseifer (1), Chas W. Case (2), H. R. Cremer (1), May Graham (2), Eugene P. Henry (4), Antoinette B. Hervey (3), Ethel W. Hill (2), A. S Ingram (2), H. E. Jeltsch (2), Ida M Jennie (2), Myers R. Jones (2), Joseph

Kraysler (2), Sophie L. Lauffer (4), W. E. Macnaughtan (3), F. B. McCabe (2), J. R. Minor, Jr. (1), Zella Mitchell (2), Robert B. Montgomery (3), Henry Hoyt Moore (3), H. A. Neuman (3), Edward Ostrom, Jr. (2), Walter E. Owen (2), J. Halstead Patterson (1), Joseph Petrocelli (4), Leo Pokras (2), Elsie P. Poor (1), A. Merrell Powers (1), Mary A. Preson (1), Myra Taylor (1), J. H. Tice, Jr. (2), Samuel P. Ward (2), A. S. Willson (3).

California Camera Club

The California Camera Club over the signature of its Demonstration Committee Chairman, Mr. P. Douglas Anderson promises a most inviting program for the coming season. The things planned, the added impulse which the moving into new quarters will give, and the reaction after the summer lull should aggregate a sum of ambitious activity that will make history for the club.

Camera Pictorialists of Los Angeles

The Eighth International Salon of this organization is naturally an all absorbing matter with its members. Looking over its list of active and associate members is like reading the Photographic Blue Book. Certainly the west has given a goodly share of masters to the aggregate of Pictorialists. Albeit several masters are missing from this list this year, other names appear which are giving great promise.

Southern California Camera Club

For want of late news from this body we quote from its publication, "The Accelerator".

"The matter of being an editor is a rather monotonous job. After spending nd entire evening thinking it over (and 's some job) and getting it in print, you nd you haven't got anything after all. ut we must fill space somehow."

Our difficulty has been not to fill space ut to find space for the mass of material iat comes to hand. Choosing is the arder task.

The Chicago Camera Club

This group of earnest workers have een going in for kindred arts and we ead in their little Bulletin "The Exposure" of Banquets and musicians, and of art in the abstract.

This is as it should be for the nine muses were sisters and it is not in the heart of the inspired Pictorialist to sever so united a family.

The Newark Camera Club

Rain seems to have interfered with the outdoor activities of photographers in New Jersey but it has not dampened the ardor of the enthusiasts. One Man Shows and One Print per Member Exhibits have kept interest alive. We hope the active bodies in this live association may feel impelled to send us prints from some of these exhibitions from which we may be allowed to choose for reproduction. The photographers all over this country and in others who read CAMERA CRAFT will be glad to see prints which the occasional Salons do not put before them.

Pittsburgh Salon Elect

At the annual meeting of the Photographic Section, Academy of Science and Art, Pittsburgh, Pa., Tuesday evening, May 13, 1924, the following officers were elected for the ensuing year:

O. C. Reiter, President.
N. S. Wooldridge, Vice President.
P. F. Squier, Secretary-Treasurer.
S. A. Martin, Print Director.
L. C. Rennie, Lantern Slide Director.

Executive Committee:

C. E. Beeson,
F. O. Van Gorder,
W. C. Mellor,
O. C. Reiter,
P. F. Squier.

The major work of this society is the Annual Pittsburgh Salon of Pictorial Photography. The Twelfth Annual Salon will be held in the Art Galleries of the Carnegie Institute, March 1925.

To Club Secretaries

We would respectfully beg the secretaries of the various clubs to send us more particular news than their little journals print. These publications generally reach us when the contents are no longer fresh and lack the peculiar interest for our readers which made to order, hand written stories of persons and doings generally convey. You are interested in knowing what others clubs are doing. They hold a like interest in your activities.

Notes and Comment

Tax On Wollensak Lenses

On and after July 15, 1924, the Wollensak Optical Co. will discontinue their policy of paying the government retail sales tax on photographic lenses. When this discount was levied on January 1st, 1922, the Wollensak Company absorbed it in the hope that it was only a temporary measure and would be repealed before long. However, because of constantly increasing costs in manufacturing and materials, they find it necessary to pass this tax on to the ultimate purchaser.

This does not materially alter the price of Wollensak objectives. The tax is figured on the wholesale cost of the lens only and accordingly only amounts to about 5% of the prevailing list price on Wollensak outfits.

They express the desire to keep their prices as low as is consistent with Wollensak quality and urge all photographers to bring whatever pressure they can to bear to effect the repeal of this tax on photographic lenses.

A Sweet Aftertaste

The Eastman School of Professional Photography has come and gone. The aftermath is a consciousness on the part of every photographer who attended that he has gained much and enjoyed greatly. Those who could not attend have been benefitted, with or without their knowledge or consent, for in the general good achieved all share.

It is significant of the idealism underlying his business in these unjustly condemned days, that concerns no longer limit their efforts to their own exploitation but broadly and generously seek a general betterment of standards; a raising of conditions. In this particular the Eastman Company have been pioneers: Witness the stupendous courage, the liberality of their latest move in Great Britain, where the contribution of many thousands of dollars made a convention of professionals possible and changed a gloomy "slough of despond" into a sunny vale of cheerfulness.

This speaks of the Eastman School. The men who made school a pleasure, whose personality, warmth, sincerity left in their wake friendly remembrance and good will, deserve special comment. It is the concensus of opinion that A. B. Cornish, J. B. Glaze, B. N. Sederquist and W. F. Sullivan are familiars on the Coast for all time to come and their names are printed here in behalf of the many friends they made as an expression of appreciation.

L. Sibeneck Locates in San Francisco

The Defender Photo Supply Company true to their promise have opened a branch at 85 Second Street, San Francisco, California and Mr. L. Sibeneck, who is widely known to business men and professional photographers, has assumed charge. The gentleman made a host of friends in Los Angeles where he was for sometime executive of the Defender office in that city, and his pleasant personality and ability to give service should extend his popularity greatly by the present widening of his territory.

Series 1a Velostigmat Prints Wanted

The Wollensak Optical Company of Rochester, N. Y., is in the market for prints showing the work of their new Series Ia Velostigmat f6.3—f7.7. This lens is their new triple convertible anastigmat, the single elements of which are also anastigmatic. They particularly desire sets of three photographs, one made with the doublet and one with each single element. They are also interested in any good commercial photographs or views made with this objective. For such prints as are acceptable for their use, they are willing to pay a reasonable price.

Knowing the Wollensak people and hearing of their character from those who have dealt with them, we recommend the readers to send in their best, unreservedly.

Exposition of Inventions to Interest Photographic World

The Exposition of Inventions recently announced by the American Institute of the City of New York to be held in the Engineering Societies Building, New York City, December 8th to 13th inclusive, 1924, will appeal to those who are interested in the development of photographic equipment. During the early days of photographic experimentation and the invention of apparatus, the Institute lent its support and encouragement to inventors, which led up to the Exhibition of Photography of 1898, held in conjunction with the Institute's annual fair at the Academy of Design. This was followed the next year, 1899, by the International Exhibition of Photography at the Gallery of the Institute.

In recent years the American Institute has maintained an active Photographical Section, interest being centered on artistic and travel photography. Through this latest Exposition the Institute aims to link the past with the present; to show the wonders of present-day things by comparison with the inventions which preceded them, and it is believed that achievements in the photographical world will find a conspicuous place among the displays.

The Exposition of Inventions is being arranged by a Committee of the American Institute, with offices at 47 West 34th St., New York City. All proposed displays are subject to approval by the Institute, it being the desire to show only those things of sound worth.

The Verascope Catalogue

We have just received a copy of the Verascope catalogue published by O. H. Sampson, 510 North Dearborn Street, Chicago. The catalogue is complete in every detail and fully describes and illustrates the Jules Richard line of stereoscopic cameras and equipment.

New Aerial Camera Invented in Australia

A new aerial camera, the invention of Mr. W. H. Hansom of Victoria, has just been completed at the engineering works of the Shaw-Ross Aviation Co., at Port Melbourne, Elmer G. Pauly, Assistant Trade Commissioner, Melbourne, informs the Department of Commerce.

The inventor claims that he has taken oblique photographs when flying at 126 miles an hour. The camera is very rapidly operated and on one occasion it is said took 12 photographs in three minutes when flying. The most original feature is the focusing—for the focus, says the inventor, can be instantly changed in the air between the limits of 10,000 feet and 25 feet.

Science Aids in Conviction

The appended news item from a daily paper will convey to our readers in the most graphic way how important the work of our contributer, Mr. Chauncey M'Govern, is. To those who are seeking a vocation in the field of Photography the M'Govern articles furnish a well lit, clearly defined road and the text is almost a complete course of instruction. In fact we have reason to believe a few bright students, here and there, are qualifying along those very lines with no better tuition than they got from our pages. What better instruction could they have?

"A new and effective way of proving facts of a microscopic nature to a jury in a murder trial was successfully used by Assistant District Attorney Leo. R. Friedman in the Schrader murder case before Judge Louderback last week.

When Schrader was arrested within a few minutes after the murder, his revolver, captured by the police, contained five exploded cartridges and a sixth empty chamber. The following day a sixth exploded cartridge was found by a business man near the scene of the murder.

It was claimed by the defense that this sixth shell was fired from the revolver of the dead man, who had first shot at Schrader, who fired only in self-defense. No Jensen revolver was found, it being the theory of the district attorney that the sixth shell was not fired from Jensen's revolver, but from the revolver of Schrader.

Expert Chauncey M'Govern was called in. By making fotomicrografs of the firing pin of the Schrader revolver, front and side views, and then making fotomicrografs of the indentations in each of the six shells caused by the firing pin, it was demonstrated to the jury that all of the shells had been fired by Schrader.

International Photographic Association

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Class 2.

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2½x4¼ of Chinese temple, Malay mosque, Batak (native of this island) village, etc.; for photos in which water plays the prominent part. Class 1.

5361—W. N. Wylie, 417 Garfield Ave., New Castle, Pa.
2¼ x 4½, 3¼ x 5½ and enlargements of artistic nudes, drapes and undraped; for the same. Would like to exchange with foreign countries. Class 1.

5362—E. B. Crosswait, Lake City, Iowa.
Post cards, of scenic, typical and artistic; for the same. I desire to exchange only post cards. Class 1.

5363—Lloyd Curbow, Hawaiian Ord. Depot, 2400 N. King St., Honolulu, T. H.
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RENEWALS

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3¼x5½ of Mayo-Yaqui Indians and landscapes; for city views and bathing girls and landscapes. I desire to exchange only post cards. Class 1.

5270—K. Arnold, Box 241, Clay City, Indiana.
3¼x5½ and 5x7 of home portraits and outdoor scenes, etc.; for home portraits, beach scenes, life and child studies and anything of interest. Class 1.

ATTENTION! MEMBERS OF THE I. P. A.

The remarkable increase of activity within the past months has so encouraged the State Directors that they are keyed up to making unusual efforts to ride high on the wave of this greater interest. This is as it should be, for the International Photographic Association can be made to produce wonderful results, in many ways, for those who avail themselves of what it offers. But we may not hope to get more out of anything than is put into it. We receive in proportion to our giving. Help your own State Director, take a personal interest in helping to fill the Albums, demand that such Albums be circulated regularly, and above all things, correspond among yourselves. It will repay you.

If you have not received the rules of the Association make it your business to do so, and then abide by the regulations. It will avoid annoyance to yourself and to those with whom you try to establish exchange. There are many fine workers waiting to send their best prints to those who have fine prints to send in return and who are prompt in replying.

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UNDER THE OAKS

GAVIEN F. McCULLAGH
Berkeley, California

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

SIGISMUND BLUMANN, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

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Modesty and the Human Form Divine

By James McPartland.

There has been so much said and written of what constitutes morals and art, beauty and modesty, in connection with one another and with the arts, that I should have refrained from jumping into print with more of the same sort of thing if these beautiful pictures had not come to my attention. Mr. McCullagh, on showing them to me, expressed no illusions as to art or modesty or anything else. He showed these gems quite as a matter of fact as pertaining to the day's business. And quite right of him. There is no personal opinion to advance.

The human form is divine when it is as its Creator intended it to be. Of all aspects of Nature none are richer in the curves that make for beauty, none sublimer toward the expression of grace and pure emotion than the unaffected poses of woman. It is only consciousness of exposure, intention to expose, patent nudity, and the exploitation of nudity that makes pictures of that sort objectionable.

The young creatures shown here, decently draped, gracefully active, and wholly unconscious of observation are bits of classic poesy. They carry the message of the Pierian Philosophers who foregathered on the slopes of Parnassus and mingled with the Gods. They are poetry in lines, music in motion.

That the prints are sharp and clear, without attempt at diffusion and show straight photography is one more refreshing thing about them. The temptation to fuzz them up and print in or mask out, or in some way bedevil them must have been great. Had Mr. McCullagh had the Salon bee in his bonnet at the time, we might have seen something different: Something less pleasing and harder to understand. As it is we have clean young bodies moving in the sunlight to the impulses of clean young minds.

It took some persuasion to induce the maker to release them for my purpose of illustrating something that has been on my mind for a long time. With the likelihood of their showing up in this publication, an ambition to say something for himself seemed to be aroused in my friend's mind. He may talk against my viewpoints but he cannot change the facts.

The Grace of Human Motion

By Gavien McCullagh, Berkeley, California

Illustrated by the Author

There is nothing in nature more beautiful than the human figure in the motions of the dance. There is no prettier or more natural setting than under the oaks of Faculty Glade on the campus of the University of California in Berkeley.

The Partheneia, which is the annual masque given by the women of the university, is produced in this appropriate setting every spring. The stately queen and her princesses sit upon their thrones garlanded with flowers, while sylvan creatures of fancy dance to soft music. Sometimes they are frightened away by an ugly and grotesque monster, but the fairies always come back and the contrast makes them all the more beautiful.

The photography of these "fairies" is one of the most enjoyable things that I do each year. They are always ready to try any new step, or motion, or lighting effect, and I find the cooperation a wonderful inspiration.

There are any amount of opportunities for new and different lightings and compositions. If you will study the illustrations you will see that many of them have been taken nearly against the sun—this gives a very pleasing outline of light on the curves of the figures. When the sun is rather low in the sky it gives a rounding effect and depth which is most pleasing.

One year the girls had been promised a page layout in a rotogravure section of one of the San Francisco papers provided the editor could get what he wanted. One photographer's prints had been rejected before I was given an opportunity. I knew that to win I must get something original and unusual. So I went so far as to have two of the girls dance up a tree and into the branches of those oaks and worked up poses that I have never seen before and which I hoped had never been seen.

I must present rather a humorous sight, trying to show these girls what I want, but I seem to be able to make them understand. A photographer needs be a little bit of everything to get the viewpoint of his clients—inventor, realtor, minister, or dancer.

To return to the illustrations: We were given our layout and two of the tree pictures were the result. Many times a shadow effect had to be contrived to relieve an awkward, homely costume. This "dodge" was used in taking the Nautch dancers.

Here are some of the technical points of this branch of photography. A Graflex should be very useful though, to confess, I have never used one. Mine is a $6\frac{1}{2}$ by $8\frac{1}{2}$ view camera, set on a tripod, an F8 anastigmat

FREEDOM
GAVIEN F. McCULLAGH
Berkeley, California

EXUBERANCE
GAVIEN F. McCULLAGH
Berkeley, California

THE CAPTIVE BUTTERFLY
GAVIEN F. McCULLAGH
Berkeley, California

lens with a between-the-lens shutter. Eastman portrait film par speed, is the negative matreial. I have very little trouble with moves at 1/100 and 1/150 of a second exposures.

One should not try to fill the film with figure but should give oneself plenty of leeway. My first move after setting up the camera is to make a small hole in the ground about which the subject is to dance. I have the girl stand on it so that the focus may be determined. Most dancers can manage to have the climax of their dance come at this given point. If you watch a toe dancer closely you will see that there is a point after she reaches the top and before she starts down where there is very little motion—that is the time to be quick on the trigger.

I was very much interested in the talk and demonstration given by Nicholas Muray at the National P. A. of A. convention last year. He gets some very beautiful things of dancers in his studio. He said that he knew nothing about composition and that he gets correct proportions by just making them look right to his eye. I work much the same way as I know very little about composition, as it is technically construed. We all feel composition and proportion and use it everyday without thinking, and it is conceivable that such subconscious government is sufficient.

The SPIRIT OF THE DAN
GAVIEN F. McCULLAGH
Berkeley, California

THE SYMBOLS OF BEAUTY
GAVIEN F. McCULLAGH
Berkeley, California

Much prettier things may be made of one, two or three dancers than of larger groups, and they are much easier to handle. A group of two can be handled best. The prints herewith are sharp, but very beautiful projection prints may be made from sharp negatives by using a soft focus lens. A little diffusion gives roundness and depth and adds much to the quality of the print. Care and restraint are required, for diffusion may easily be abused.

Our Cover Design

The citizens of Portland have a special and peculiar pride in the Sacajawea Monument. Erected by the Women of the United States in memory of the only woman in the Lewis and Clark Expedition, it is felt to typify the spirit of the city itself. The soul of the pioneer in the fair exterior of womanhood. A brave and enterprising community in a beautiful environment.

The photograph from which the reproduction was made was kindly furnished by the Southern Pacific Railway Company.

Better Business And The Commercial Photographer

By Laurence B. Morton.

Sometimes I wonder whether we photographers are worse than men in other lines of business, and when I see the methods of other concerns am led to wonder if all of us, irrespective of our lines are equally heedless of the elements that enter into and are the essentials of good business.

Considering how exact we are in money values when cash is the tangible concern, it is incomprehensible that we should be so negligent in accounting for the many items that are in the last reckoning as certainly real money. The universal error of judgment on the part of photographers is in not organizing their system of bookkeeping. The plant is merely the producer. To hope to keep it going without a well established accounting department is futile. The merchant needs scales to weigh, the thermometer shows whether more heat, and fuel to maintain it, or more air is called for. Measurement is the fundamental of economic procedure.

For instance:—How many know exactly what constitutes Overhead? What part of their expenditures come under that head? What the net profits are as against the gross? How to mark off and apportion fixed expenses so as to know the month by month status of the business? Not many I am afraid. Equipment is apt to be credited at its original cost and to be permitted to appear on the books a fixture among the assets. The machinery you bought a few years ago may be worth half as much at this time or it may be worth fifteen cents. Depreciation from use, abuse, neglect, or through becoming obsolete all must be figured and to do the going business justice this must all be apportioned over the year, a fair share for each month so that a sudden marking off does not terrify when appearing under one head, disastrously ominous.

In speaking of fixed charges which should be so distributed over the months of each year may be mentioned Insurance, Taxes, Depreciation, Overhauling, and in our own concern we pro-rate the advertising the same way. This method of dealing with advertising has led us to a conservative system that we should probably not have thought of otherwise. We allot a percentage of the gross of each year to advertising through the next and spread the accounting over the entire year, even though we may spend the entire allotment in one month—which, by the way—we have never done.

Reducing business to such definite practices soon shows the need of scientific bookkeeping and statistical formulas. From the facts put before us, graphically, we are impressed by the need of retrenchment before an emergency forces that need upon us. We are encouraged to spread and reach out more bravely by finding the relation of this year to last shows a healthy growth. We find certain things have paid dividends and others

have been a dead loss, and we know just which is which and when, and how. Yes and not infrequently WHO.

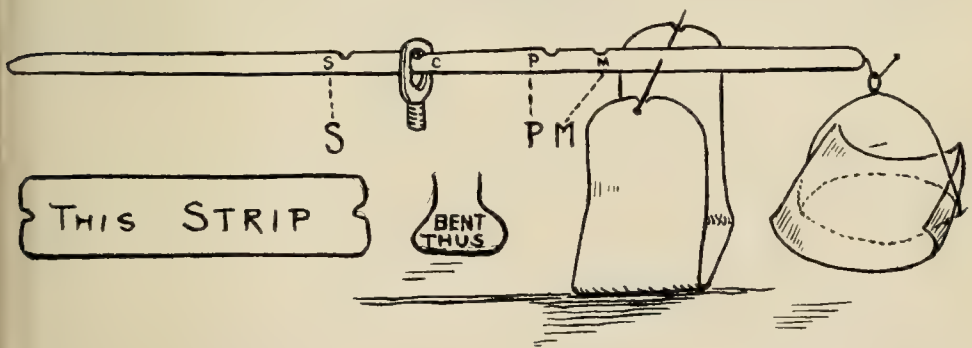
If half the care were taken of the inventories as is taken of the cash we might avoid those accumulations that clog the stock-room, or encumber our books with accounts that we should have known must be bad before we permitted them to become our liabilities.

Scientific Accounting, Strict Business Methods are the Pulsometers and the Stethoscopes of Commerce. In no line are they so necessary as in ours—and I am speaking to Commercial Photographers because I am one and may be permitted to talk in my own meeting place to my own people.

This talk about scientific accounting sounds formidable whereas it is as simple as can be. All that is required is that a competent man be hired to install an adequate system and that his directions be followed thereafter. What follows is simple clerical routine. Anyone can do it: In fact we carry our whole business in one book.

Home Made Scales

By C. V. Ashbaugh, Oregon.



As I have been using a home-made scale for years, I was interested in Mr. Lowe's article describing his in our good "Camera Craft" of December; but after considering all points, decided its cost was against it, so, for the benefit of those who will need this "nickel" for a tube of developer, with your kind permission, I will describe mine.

The working base is a piece of tin cut from a discarded can, or any sheet metal that can be bent with the fingers. Make it about two inches wide by eight long, rounding both ends. If you haven't an old file in your collection, borrow one, (not necessarily an old one only they are easier to borrow) and make a notch in each end of the tin as per cut. Then bend to a sort of "U" with flat base and points somewhat together.

From the kindling box or other source get a piece of stick, any kind, though if straight, white, and of soft wood, the working and marking will be less difficult. Cut to a thirteen or fourteen inch length, about the thickness of a lead pencil, slightly flattened with a thinner edge for the top side. Through it the thin way, at right angles, about four inches from

one end drive a pin half its length. These can generally be found around the house, or, if you are fortunate enough to have a wife, ask her for one.

The pan is made from a piece of negative-film. It should be four by four inches either square or rounded. Scald and scrape both sides until the celluloid is free from any coating as it is much easier to keep clean, the chemicals to be measured often staining the gelatin and causing it to gain weight slightly.

Next get some small wire. Don't buy any as the old broom or the trimmings from the screen door will furnish all needed. Shape it so that it will carry the piece of celluloid as shown in cut.

Just here I will insert a word of praise for the pan used by Mr. Lowe, and, although my carrier or basket is very similar, I never thought to cut out the sector and form a dish, but used it with two sides, only, cupped.

In the four-inch end of the stick drive another pin. (I forgot to tell you to get two while you were about it.) And bend the protruding end into a hook. Hang the basket to this hook, and rest cross-pin in the notches of tin.

Now for the weight: Many things may suggest themselves. I have a junk box that catches everything that may come useful at some future date. From it I get many ideas, for by taking a hazy plan of construction with me and running through the contents of this box, some piece of iron or brass will clarify the situation at once, but all this is slightly off the subject. In this box I found a piece of brass ramrod of ancient pattern used for cleaning some old smoothbore. It had a hole through it that would permit of its slipping over the stick. This weight now runs up and down the longer end of my stick, coming to rest in notches that I have cut and marked, "P" (Pyro), "S", (sulphite), "C", (carbonate), etc., for my pet formula which, I may add, is recommended by the makers of my pet brand of film. If I chance to change my pet, I change my stick.

"—and that's all there is to it"—except, like Mr. Lowe, I had to go to the corner drugstore for my starter.

Small Children's Pictures

By Prof. Dr. Fr. Limmer, Darmstadt.

Illustrations by the Author

Mastery of photographic technic and an artistic sense are not sufficient to produce good baby pictures, for it is likewise necessary to understand the psychology of children, to win their confidence, have ample time and be patient.

There are two possible conceptions: the face-picture and the more playful environment-picture showing the child as the center of its world. it is the main point of interest, yet its surrounding is not entirely subdued.

As time-exposures should be avoided with grown-ups, much more is this the case in children, while groups of children very rarely give success. One should not demand the child to be motionless, in fact, it should be in slow motion, for even if one should be successful in getting the child perfectly motionless, it will show in the majority of cases a forced position and an unnatural expression. Naturally the exposure must be taken in such a way that the child does not realize it, and it is even more advantageous if the child do not know that a picture is to be made.

In child pictures we are dealing, therefore, with snapshots or very short time-exposures, hence, in order to be successful this fact must be realized and the requirements and conditions must be fulfilled. These conditions and requirements are, in short:

The Camera.

In the majority of cases the picture must be taken by hand. One must even be able to follow the child, hence, a rapid and certain focusing is required. One should be able to see the picture up to the last moment, hence the focusing by means of the finders is uncertain. Focusing direct upon the plate by means of the matt-surface plate is impossible without support, hence, the only camera for child-pictures is the mirror camera. These types of cameras alone enable one to see the picture to the last moment and permit waiting for the most advantageous time.

The reflex-camera, however, is rather heavy, especially those which cannot be folded together. Likewise, they are usually expensive, but the advantages offered are so great, that one should decide upon this type. It is often affirmed that the camera must be held very low, and the picture looked upon from above,—this is rather an advantage for in the case of child-pictures the camera is not inclined, and in photographing taller objects one can easily find or improvise a higher position.

Again and again I have found through many years of experience that the reflex camera is the one best suited for children-pictures.

The Lens.

The more rapid the lens, the more light will fall in a given time upon the plate, and accordingly the shorter the exposures, hence, less danger of hazy impression because of motion. However, the more rapid the lens, the less sharp the details of the background. This disadvantage can be utilized by focusing sharply upon the child and leaving the background slightly out of focus. With proper manipulation of the diaphragm one can modify to some extent the relation of background and child. Experience is here the best teacher.

Rather long focus should be selected, for a plate 9x12 cm. (3x4 in.) at least a focus of 18 cm. (6 inches), which enables one to avoid being too near and yet to obtain a relatively large picture.

The Shutter.

A shutter permitting the utmost utilization of light should be chosen, as one has to deal with very short exposures. Hence a drop-shutter is usually supplied to the reflex camera.

The Plates.

I am using for children's pictures exclusively, orthochromatic plates. In order to obtain a good reproduction of the color shadings it is essential to use a very light yellow filter. Naturally this is not absolutely necessary in those plates which are already prepared with a yellow pigment. (However I do not want to support the wide-spread and erroneous idea that yellow pigment plates can be used without yellow filter and a good color-representation thereby obtained. Without yellow filter the blue will be subdued only at longer exposure.)

The Exposure.

As already pointed out the exposure should be instantaneous. In the majority of cases 1/20 second will be sufficient in open air and sunny rooms, provided it is possible to use a lens opening of 4.5.

The Development.

The best picture may be ruined by wrong development. On account of the short timing, over-exposure seems to be excluded. The development, therefore, should begin with a diluted energetically acting developer, and, if no over-exposure is shown, be finished therein. One should be careful that the solution is not too warm. Room temperature (e.g. 18°C or 64 F), should be the upper limit. One should develop slowly and be

careful that the lighter portions do not become too dark and details thus become lost by over-development.

The Paper.

It should not be difficult to select from the great variety of papers one that is best suited to the motive and character of the picture, and pleasing to the personal taste of the maker. Generally for small pictures one should select a fine-grained, half matt paper. For enlargements or larger heads I prefer a rough granular and matt paper. Yellowish paper is warmer than white. Brown shades are likewise warmer than black shades.

The Place.

Any location having good light may be used. I prefer open air pictures to those in closed rooms. An important factor should be kept in mind: to take the child in his customary surrounding. If it is in any way possible, one should never deviate from this. An adult may to a certain extent forget the surroundings, a child never. If one brings a child to the studio, or other strange place, one should give it time to become accustomed to its new surrounding and begin to feel familiar. It must feel at home in the place where its picture is being taken. Even the photographer should try not to be an entire stranger, but should try to win its confidence.

The type of location is likewise of importance. The background should not be distracting. A surrounding of green, as grass and shrubbery, calls for a slightly longer exposure than a place with open air, and sun-saturated environments.

The Light.

For children only day-light should be used. Artificial illumination must be avoided, else the child is distracted.

"Light-Guidance" or The Distribution of Shades.

The light-condition of a given locality is not the only consideration: It must be carefully utilized in its effect and the relation of object and camera properly contrived. An effective "light-guidance" can come only as a result of artistic taste and great technical skill. The artistic effect of the finished picture is mainly due to this relationship. A strong side-light, an exposure against the light, and so on, will often produce characteristic and charming pictures. (By photographing against the light one has naturally to guard against the possibility of direct sunlight falling upon the lens.)

The Child Itself.

Study of the pictures in the windows of photographers shows that mothers seem to take great delight in dressing and "fixing up" their children to make them, thereby, as unnatural and artificial as possible. This should be avoided. The child, quite naturally, feels in these unaccustomed clothes quite different than usual, and its facial expression, as well as his position, is thereby influenced,—in short the result is an unnatural picture.

The child should be dressed as simply as possible, in its usual, every-day clothes. White dresses should be avoided, as they appear as white spots in the picture. Slightly colored or checkered clothes are good. Stripes also should be avoided, as they appear restless on the picture. Too dark clothings should likewise be avoided, and the color-values should be observed in advance. Dark red will be black, blue appears light, even white.

The Finished Picture.

For the total effect of a pleasing child-picture the mounting or framing is of importance. The best picture is ruined if it be tastelessly mounted. There is much poor taste exhibited in frames. One should always remember that the picture itself is the main part, and that the cardboard or frame has to adapt itself in color and character to the picture.

In closing I want to point out that it seems rather remarkable that there are so few specialists for child-pictures. There are many large towns without a specialist in child photography. And yet this field is so satisfying and lucrative, when good work is delivered. The amateur will find in child photography much joy, especially when the models come from his own family.

There is nothing more charming and human than taking such pictures. The child offers such a wealth of expression with its vivacity, its eagerness to discover, its power of imagination, its capacity to enjoy and laugh; in short its whole world of innocence and joy in life.

Clear Fused Quartz

By E. P. Lovejoy.

Illustrations by the Author

A new aid to men of science which may well develop into one of the most signal contributions of the century is contained in the fact that clear fused quartz can now be produced in large quantities, and in relatively large masses.

This announcement has just been made by Edward R. Berry, Assistant Director of the Thomson Research Laboratory of the General Electric Company: that clear fused quartz can be produced on a commercial basis, in sizes and quantities heretofore impossible of achievement.

As a result of a demonstration of the physical properties, and the method of manufacture, recently made before press representatives at the Lynn Plant, considerable scientific interest and speculation has already been evidenced.

Probably the two most important properties of this substance are: first, its ability to transmit wave-lengths which cover a wide range in the spectrum, ranging from the infra-red or heat rays, through the various colors visible to the human eye and on down to those shorter wave-lengths known as ultra-violet, invisible, but health-giving; and second, an extremely low co-efficient of thermal expansion.

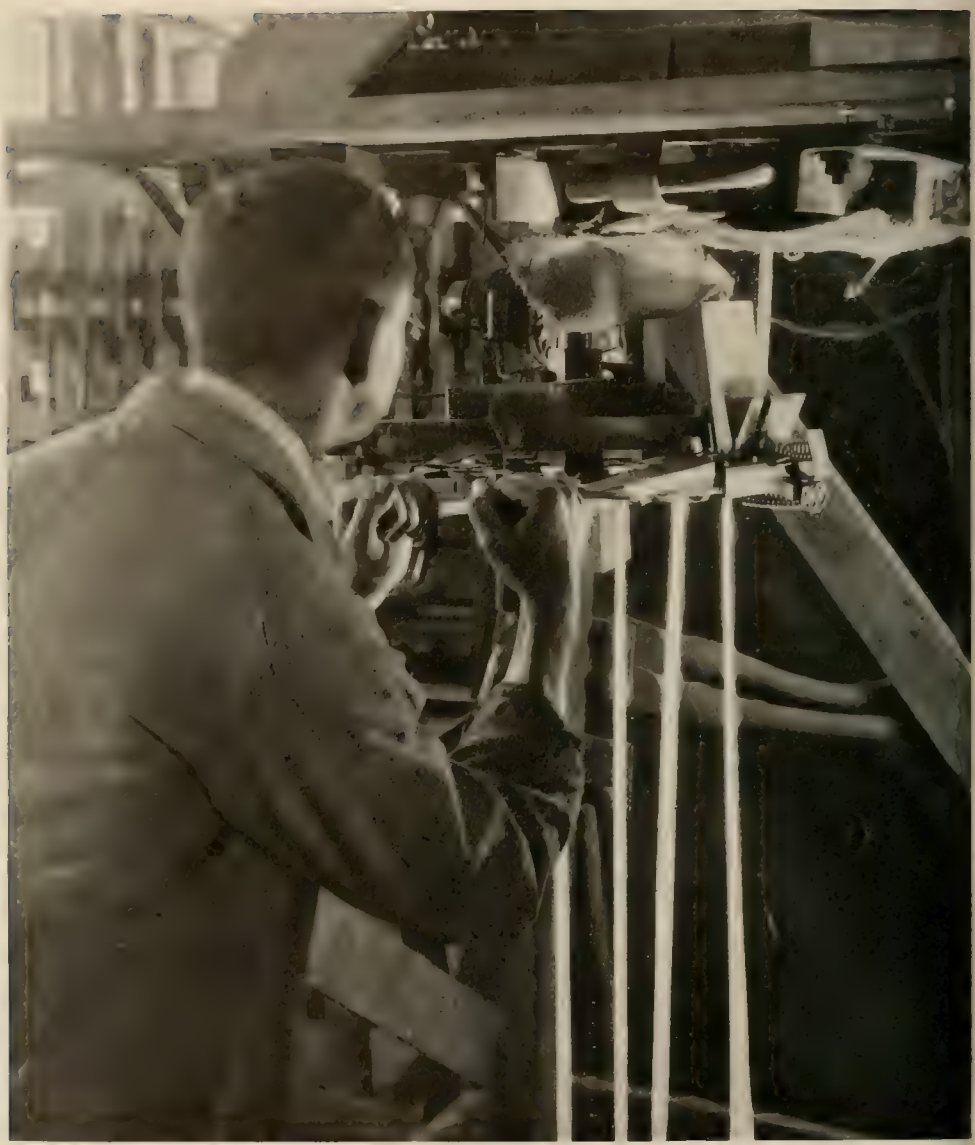
Because of its ability to transmit visible and invisible rays, around curves if necessary and with little loss, this material will be of great benefit in therapeutics. Because of its low co-efficient of thermal expansion, precision apparatus, the tools with which science works, will be increased in accuracy and utilized in new ways which will add to the sum total of human knowledge.

Examining Living Tissue.

In using the microscope for examining cell structure in biological work, it is often necessary to stain the slides in order to bring out the cell's construction. Sometimes the process of staining changes the actual character of the cell, certainly it injects an element foreign to its nature. Using a clear fused quartz lens, and ultra-violet light, a photograph can be taken of the cell-photographic plates being affected by ultra-violet although it is invisible to the human eye. It is quite possible that the resultant knowledge of cell tissue will be new and valuable, perhaps startling.

In Precision Instruments.

The standard of length, housed in the Bureau of Standards is a meter bar, with two studs inserted marking off the international unit of measurement, 100 centimeters. Great precautions are taken to keep this standard of length at constant temperature. A rod of fused quartz one meter long will expand about six-tenths of a millimeter for a temperature increase of 000 degrees Centigrade. This remarkably low co-efficient of thermal ex-



THE LABORATORY TEST

pansion may also be utilized in the construction of pendulums of clocks, where a change in length must be compensated.

A thermometer made from quartz is not subject to the appreciable "lag" known to exist in glass thermometers. When a mercury-in-glass thermometer and a mercury-in-quartz thermometer were placed in a bath of melting ice (zero degrees Centigrade) and the temperature raised to 515 degrees Centigrade, then slowly lowered to zero, the glass instrument read four degrees below zero while the quartz instrument read zero exactly.

LIGHT THAT TRAVELS AROUND CURVES

Clinical thermometers are also subject to this discrepancy, and where a difference of a half degree is of incalculable value to the physician, quartz may replace ordinary glass.

Clear fused quartz may find a field of usefulness in the musical world. A tuning fork made from this material does not change its pitch with temperature changes. It may be corrected in manufacture without having its pitch appreciably affected by an increase of temperature due to grinding or otherwise working the material, as is the case with metallic forks.

A FINISHED CASTING

In the Medical Field.

For therapeutic treatments quartz seems to offer valuable contributions. It is possible to localize and direct rays of ultra-violet* light by the use of a quartz rod. This rod being curved into the necessary shape the light is transmitted into the body cavities which have hitherto been inaccessible or difficult of access. Ultra-violet light, produced by a mercury vapor lamp also constructed of quartz, is used as the source of the rays.

Water is sterilized when subject to these rays. Due to the absorption by the atmosphere, comparatively few ultra-violet rays from the sun reach the earth. It is now possible to obtain and direct ultra-violet light from quartz mercury vapor lamps, and to send it around corners.

*The "observed" ultra-violet rays range from 202 engstroms to the last visible violet, 3600 engstroms. The engstrom is a unit of light measurement and is 10-8 centimeters.

In Astronomy and Photography.

Since the image of a star is always a point on the axis of a lens, the axial aberration is of chief importance in astronomical work. In photographic lenses, however, it is necessary to recognize and correct for five different kinds of spherical aberration, and the manufacture of high grade photographic and astronomical lenses has been increasingly complicated.

For accurate work in astronomy it is vital that the huge reflectors (mirrors) and lenses maintain a constant temperature during observations. To achieve this, elaborate precautions are necessary whereby constant temperature vaults are provided whose temperatures are maintained by the circulation of brine in pipes, and even then the mirrors are "put to bed" under many layers of blankets in order that the temperature changes may be evenly maintained. All of these precautions are taken to avoid the distortion which would follow a temperature change in any one section of the lens resulting in internal stresses. The low co-efficient of thermal expansion, against reverting to the second mentioned notable property of clear fused quartz will perhaps do away with these precautions. A telescopic mirror or lens made from quartz would certainly go through a range of temperature changes without distortion of the image. Add to this the fact that clear fused quartz can now be produced in relatively large masses; that the supply of raw quartz constitutes no less than three-fifths of the earth's surface (considered to be ten miles deep) and the more apparent applications are accounted for.

Glass condenser lenses for use in the larger motion picture machines have a comparatively short life, often breaking in a day or two. Frequently these lenses are subjected to the heat of an arc consuming 150 amperes of current. Quartz lenses made in the General Electric Research laboratory have been operated in motion picture projectors for six to eight months and are still intact. These lenses are also more free from pitting deposits which result from hot particles thrown while molten from the carbon.

The development of this material and the ability to produce it come as a result of nine years work on the part of Mr. Berry and his assistants, L. B. Miller, P. K. Devers, and Wallace Wright, all of the Thomson Research Laboratory staff of the General Electric Company.

In a demonstration recently made at the Laboratory, an operator heated in an ordinary gas flame a quarter inch rod of glass tubing to a red heat, and slowly dipped it into water. It fractured and splintered.

"Show them what quartz will do, Eddie," said Mr. Berry, and with a confidence built on nine years study, he turned his back on the experiment.

Steam and water spouted through the upper end of the tube. "Eddie" Within a few seconds the quartz was a nearly molten mass. It reached the melting point of platinum—3200 Fahrenheit. The roar ceased. "Eddie" dipped it into water. It cooled.

Steam and water spouted through the upper end of the tube. "Eddie" held it up for examination. Not a fracture or crack!

To those interested in the method of fusion and the processes which produce **clear fused quartz** the following is pertinent:

The paper delivered by Edward R. Berry beforth the forty-fifth annual meeting of the American Electro-Chemical Society, at Philadelphia says, in part:

"It has been possible for many years to make fused quartz of a high quality in small sections and lengths by hand labor in the ordinary blast flame, using gas and oxygen. This has been done by piecing together small sections of crystal in the flame, or by adding silica powder from time to time until the piece has grown to the heating limit of the flame; an obviously slow and expensive process. From this step in the development of the art to the point where very large masses of equal quality can be made has been long and difficult.

"In the last few years the advances made by the process described in this paper have been so rapid and far-reaching that there seems to be no limit now to the size of high quality clear fused quartz which can be made, except that which may be imposed by mechanical difficulties.

"There are two distinct steps in the preparation of these tubes, rods, ribbons and cane; the most important of which is the initial fusion. The clean quartz crystals, which are of various sizes, are packed as densely as possible in a graphite or carbon crucible so that during the cracking of the crystals, which is bound to occur as the temperature is raised, the parts cannot separate and allow any small amount of gas which may be present to enter the many crevices and thus form bubbles. These tightly packed crucibles are placed in a modified vacuum furnace and the temperature raised as quickly as possible to the melting point. During this fusion the pressure in the furnace is kept as low as possible. The time required for fusion will vary, of course, with the conditions and in all cases no more than 45 minutes is necessary. The energy rate of fusion is from 3 to 8 kilowatt hours per pound of quartz, and the loss of quartz due to volatilization is negligible compared with other charges. The result of this first fusion is a clear, transparent slug containing comparatively few bubbles ranging in size from a pin point to 2 or 3 mm. in diameter. Whether these bubbles have been formed by a gas or by silica vapour, it must be remembered that they have been formed at a temperature of about 1800° C; and consequently their pressure at room temperature is very small. This slug is now placed in another graphite crucible which is suspended in a vertical carbon tube furnace. A graphite piston which just fits the crucible is placed on top of the fused quartz slugs and a weight is placed on top of a plunger attached to the piston. The slugs are again brought to a fusion, the bubbles are largely collapsed and by the action of the weight, the quartz is extruded in the various forms, such as rods, tubes, ribbon, etc., which are shown. This material is practically free from bubbles, but because of limiting dimensions it may become necessary to re-work some of this, which is accomplished by the usual bench methods with an oxygen-illuminating gas flame.

"When it is desired to obtain large blocks as free from bubbles as the tubing, cane and ribbon, another operation is necessary. As before, the quartz is fused in a vacuum furnace which, however, is also designed to withstand very high pressures. As soon as the material is fused the vacuum valve is closed and the pressure in the tank is now brought up to a pressure, depending on the object in view, in less than a minute. This pressure collapses the bubbles and makes it possible to obtain very large slugs freer from bubbles than many kinds of the best optical glass.

"Previous attempts to reduce the bubbles by continued heating above the melting point resulted, after a certain stage, only in excessive loss of silica by volatilization. We have fused quartz at initial pressures of 600 lbs. per sq. in. atmospheric pressure, and less than ½ mm. of pressure. In the first case the mass was practically opaque; at atmospheric pressure it was considerably improved although much inferior to the present quality of quartz; and under vacuum conditions a large mass can be produced, as you can see, which from the standpoint of number of bubbles is very satisfactory.

"Not the least of the difficulties encountered in this development has been that in connection with the furnace equipment. The vacuum furnace in particular had to be greatly changed and enlarged with the result that we now have probably the largest vacuum furnace in daily use capable of operating at low pressures. Then, in addition to this the furnace had to be so constructed as to withstand repeatedly on the cover a total pressure of over 1,000,000 pounds (about 600 tons), and of course as the size of the furnace increases these difficulties are multiplied. Special attention must be paid to the design of resistor unit, to the thermal insulation, and even heat distribution,—to the cooling of the terminals and many other factors presented in the use of these two extremes in pressure.

When the quartz crystal is heated between 500° and 600° it undergoes a remarkable physical change, cracking into small pieces sometimes with explosive violence. This is due to the difference of co-efficient of expansion along the two axes, subjecting the crystal thereby to great strain; and because of decrepitation owing to the pressure of water and liquid carbon dioxide held in vast numbers of minute cavities throughout the crystal. The only advantage, therefore, in using large crystals for fusing lies in the greater ease of keeping the charge free from foreign material before the different particles begin to coalesce.

"Hereaus has heated crystal quartz in very small pieces, about the size of a nut, very slowly so that no cracking occurs and, consequently, no bubbles are included in the vitreous pieces. Herschkowitsch, on the other hand, has arrived at about the same result by accelerating the heating process so that a film of vitreous material is formed on the outside and prevents air from penetrating to the center, even though cracks may develop. As a matter of fact these processes, while interesting, are subject to very sensitive control and are impractical where large masses are to be fused.

"To obtain masses quite free from bubbles, it has been found best to raise the temperature rapidly to 1400° or 1500° at which point the pieces begin to coalesce. At about 1750° C the quartz viscosity is high even though the temperature be well over 2000° C. Vaporization of fused quartz is rapid at 1600° C and at 1750° C the loss due to evaporation is very great. Further increase in temperature results in no great gain in fluidity.

Homogeneity of Fused Quartz.

"The difficulties of obtaining perfectly homogeneous fused quartz free from striae, strain, bubbles, and double refraction must be apparent to anyone who has worked on this problem, and discouraging perhaps to those who have tried to buy such material. It is a little too early to state in what quantities such a product can be produced, but we have manufactured quartz of this quality which contained only two or three bubbles visible to the eye. This quality, however, has not as yet been placed on a commercial basis.

"The fact that for a great many purposes clear fused quartz can be used up to 1000° C without injury; that its co-efficient of thermal expansion is so small as to make it almost negligible; and that it will transmit light rays even into the extreme ultra-violet with very little absorption, gives to it a great utility value—not only to the scientist but the manufacturer as well.

II Stereoscopic Portraiture — Contineud

By H. D'Arcy Power, M.D.

Illustrations by the Author

It was not possible in the last paper to deal with a number of points that are vital to our subject; and to begin with what is our subject? Portraiture. It has been written that, "The poses should never suggest real action or gesture characteristic of a particular individuality. The portrait would change at once into a story telling or genre picture. A girl eating candy or fruit is no longer a portrait." Much that I have to recommend, directly reverses this dictum, and I think rightly. The essence of a good portrait is not in what the subject is doing but in the revelation of his individuality, and this more often finds expression in action than in repose. A genre picture exists to tell a story and the telling is the main thing; but it does not exclude the possibility of excellent portraiture among its units. Take Rembrant's "Anatomy Lesson" for example. No picture ever told a story more vividly, and yet its units constitute a portrait gallery, and one may well believe that the very occasion brought to the surface the feelings and temperaments of this group of interested and variously affected men. Now as I see it, if stereoscopic portraiture is to be more than an interesting curiosity it must be associated with the idea of movement; that is to say, action momentarily arrested or about to commence—and this requirement is demanded in particular by the group

TABLE COMPOSITION — DR. H. D'ARCY POWERS

stereogram, whose elements if not normally engaged would immediately have the appearance of marionettes. The possibilities of group stereograms are limited only by the skill of the artist and by the problem of illumination. I would first indicate the great possibilities of the dining table and its association. The illumination of shadows that results from the reflection of light from the large white surface of the table cloth, the remarkable reproduction of metallic lustre from silver or copper accessories, the sparkle of cut glass, all provide a setting that is redolent of life. The good cheer and conviviality that pertains to dining, sustained perhaps by some liquid refreshment, surviving from the "good old days", tend to soften that "photographic expression" and liberate the real man. The conditions are good for successful stereoscopy but they are not without difficulties. The position of the sitters needs careful arrangement. There are likely to be those whose portraits are important—others less so. Their position must be noted on the focusing screen (I always arrange by means of my reflex camera and take with the stereoscopic camera immediately beneath). Such a group should be limited to a few individuals or they will interfere with one another or compel an unnatural arrangement of the accessories. It is pleasant to remember that unsuitable members of the group, children, freaks, etc., can always be artistically eliminated by slightly moving the flower vases, etc., usually present. A point of great importance is the character of the objects nearest to the camera. These will form the foreground of the stereogram, and care must be taken that they do not absorb attention or present waste areas such as a stretch of white cloth; this latter has a very unpleasant tendency to project out from the plane of the picture when mounted. Much of this may be presented by a little ingenuity in covering up such areas with the darker objects proper to a dining table.

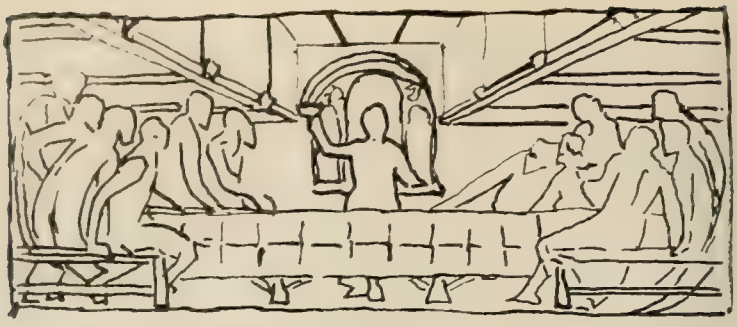


DIAGRAM OF THE "LORD'S SUPPER"

The matter of lighting is all important. Where daylight is available and well distributed, the matter is comparatively easy, but if, as is usually the case, it is an affair after dark, we are reduced to flashlight, magnesium ribbon or electric lights. Flashlights have never satisfied me; there seems, always, something unnatural in the best results. A small group of two or three can be very well lighted with magnesium ribbon,—it is a means of illumination too much neglected. Most of my own work has been done with the normal electric fittings of the room. I usually take with me half a dozen 100 watt nitrogen filled tungsten bulbs and the light of these, reflected from the white table cloth, gives ample and natural illumination. The exposure time has been from 10 to 20 seconds, and of course, this could be greatly reduced by doubling the number of lights.

The frequency with which flowers are used in table decoration makes the use of panchromatic plates very desirable. There is a matt emulsion plate on the English market made by Elliott & Sons, Limited, which completely eliminates halation: That ought to be just the thing. The kodak panchromatic cut film is most excellent.

Although back-ground considerations and composition have not the great importance they possess in two-plane photography, they should not on that ground be neglected. I think, it may safely be asserted, that they constantly are neglected, for which reason we fail to realize the aesthetic side of steroscopic pictures. The dinner table scenes to which I have just referred offer but a poor field for essays in composition, but a study of

STEREOSCOPIC LIGHTING By DR. H. D'ARCY POWERS

STEREOSCOPIC POSING By DR. H. D'ARCY POWERS

the great classical paintings of the "Lord's Supper" will show how with figures round a flat surface, effects of structural beauty may be obtained.

Great care must be observed in two matters: First, not to have figures so close to the camera as to give an utterly unusual perspective, one figure half filling half the negative; Second is, to avoid the cutting of one head by another. This precaution is the easier in table scenes as from the nature of the activities it is possible to naturally bend a given individual into almost any pose and yet make it such as might be natural. Even if you are not able to achieve the wonderful lines of the accompanying sketch, you may bear its lesson in mind.

Portrait Stereograms Out of Doors.

The well known principles governing regular photographic work of this kind apply here, insofar as lighting is concerned, only it will be found that if an exposure is made, perforce, in direct sunlight the unpleasant effects of a brilliant nose-tip projecting from black shadows is not nearly as unpleasant as it appears in the snapshot. However, the need to so work is rare but may give desirable effects in genre pictures. Out-door portrait stereograms must not be taken with out-of-focus backgrounds—this may do in the studio, but we are not use to seeing people among trees that look like wool—nor is it necessary that there be wiry sharpness; a soft focus lens stopped down so that all things appear about as clearly as we are apt to see them when not paying strict attention is what is best, and with the average lighting of out of doors is quite within range of an exposure of a tenth of a second. The use of instantaneous exposures brings into our field the possibilities of children in their play and of associating animals.

Natural backgrounds of all kinds, usually of delightful simplicity, always offer sufficient surface reflection to give illumination in the shadows, and even in dull weather permit rapid exposures. On most of the Californian Coast, projecting angles of the cliffs provide control of side lighting, and overhanging masses provide the desirable shadow cast from above, without which a too marked front lighting may result.

I return finally to the matter of children: I would refer my readers to a paper in the March issue, 1922, of Camera Craft, by Dr. J. Pollia on Stereoscopic Photography of Children. To most of what Dr. Pollia says I would say "Amen", except that for objects taken as close to the camera as children would naturally be, a lens separation of 3½ inches is likely to be one inch too much. Speaking of the special application of stereoscopy to children portraiture, he makes this remark: "The single photograph is a faithful reproduction of the composition, but the larger and more striking features generally overshadow the minor details, which sometimes are the very things which are characteristic. For example, the "cupid's bow mouth" so common in children, may have a protruding lower lip giving it a firm tone, or a projecting central portion of the upper lip, producing the well known pout. A decided three-quarter or profile view would be necessary ordinarily to bring these individualities out. In children these poses are not always desirable or practical, and consequently these points are lost. Stereoscopic portraiture not only gives an accurate reproduction of the image, but preserves the relationship in proper perspective each part to the whole."

Finally, in concluding these remarks on portraiture I would again emphasize the importance of proper mounting and the desirability of a superimposed solid mount for all pictures on which a value is placed, not only for greater protection but also the enhanced appearance.

Leon Lentelli Sculptor

That ability and modesty go hand in hand is evinced to us every day at this desk. The tyro writes in with a confidence which in the course of maturer experience he will lose, and the master pictorialist is loth to sing his own praises and delegates someone, anyone to pass judgment and express it. Mr. Harting asks the Editor to speak for him and for the picture but we feel the picture itself carries a wealth of its own, so we give the following data as it comes to us.

"The print has been shown in two or three exhibitions—recently at Pittsburg. I call it—"Leo Lentelli—Sculptor". I was in Mr. Lentelli's studio one day last summer doing some work for him. After getting me started on what he wanted done he promptly "forgot" me and went about his own work. At this time he was busy with a sixteen foot statue of General Lee, to be placed, when finished, at Charlottesville, Va. While making my time exposures on what I was doing I watched him work,—he was busy about the head of the horse. Before leaving the studio I asked him if I might "try" something of him at work. He was agreeable and the enclosed print is from one of the negatives made at that time. The big studio is lighted from a top center sky-light. The exposure was made on an Orthonon plate with a corrected lens and Pyro developed. Lens—open; exposure was short, perhaps three or four seconds. Artura print."

LEO LENTELLI—SCULPTOR
By G. W. HARTING
New York City, New York

Portable Photographic Lights

By Edward H. Flaharty

With Illustrations by the Author

ILLUSTRATING MR. FLAHARTY'S METHODS

The photographer who does not have an elaborately equipped studio might be handicapped at times in securing the right lighting effects due to inconveniently arranged lights and reflectors.

Reflectors, such as are shown in the illustration, have been used with much success and under many different circumstances in photographing commercial articles, copying, etc. An upright, 2x4 inches, is nailed or screwed to the center of a stout board about a foot square. Light sockets are fastened to the edge of white lined reflectors so that the light bulb comes in the center of the reflector. Two holes are punched in the outer edge of the shade and a wire goes through them, holding both the socket to the shade and the shade to the upright post.

The blue daylight nitrogen-filled bulbs are used with success. The convenience with which these reflectors can be moved around will save much time and trouble for the photographer in obtaining the proper lighting effect upon his subject.

IX. Finding Forgeries and Forgers by Fotografy*

How the Fotografic Film May Be Utilized to Record and Illustrate Clearly to the Layman's Eye the Covered-up Steps of the Perpetrator of Frauds in Documents of Every Kind and Description

By CHAUNCEY M'GOVERN

Hearst Building, San Francisco, California, Author of "Preparing for Trials Involving Forgery," Etc.

(Continued from August Issue)

CHAUNCEY M'GOVERN

Negatives by "Transmitted Light"

Transmitted light is so called because the light used to make the negative PASSES THROUGH the object being fotografed. This instead of the light **coming from** both sides of the document, or from either side, or from the front alone.

To make transmitted light negatives most easily, I had two pieces of plate glass, with filed edges, cut to fit into the "object-board" of my laboratory stand. Between the two sheets of glass I place the document, and shove the movable frame into the "fixt" part of the object-board. A single lamp is then placed DIRECTLY behind the object,—on the side of the object-board that is faced away from the camera. To get a diffused (even) illumination, and to prevent showing in the negative the outline of the lamp itself behind the document, I place a sheet of opal-glass between the lamp and the plate-glass. In studios where no opal glass is available, a piece of ground-glass will do. And frequently when making negatives in some small city, away from my own laboratory, to reach which there is no time at my disposal, I have made these "transmitted light pictures" by using two washed-off glass negatives, and an old wooden box with the bottom and cover removed, the glass being held together with a couple of stray clamps, and the regular Mazda lamps being loosely covered with a piece of cotton or a sheet of bond paper.

Recording, Filing, Guarding, Storage, Etc., of Negatives

For obvious reasons, it is absolutely necessary that every negative made for COURT purposes,—and the negatives may be called as late as for several years after they are first made,—should be PROTECTED

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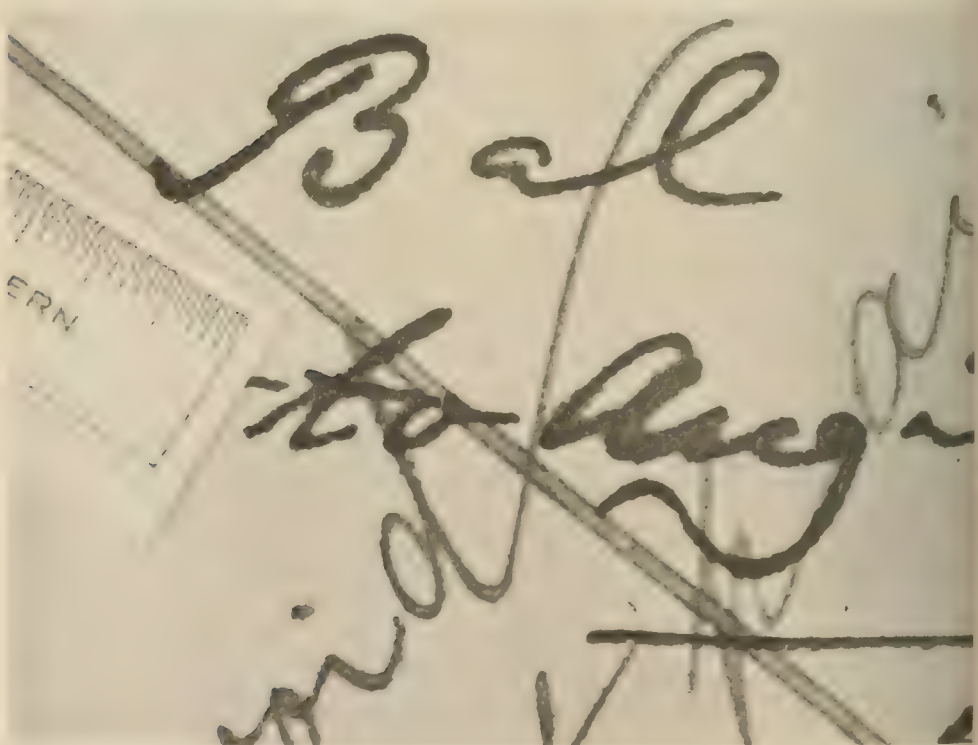
against "scratching" or other injury even to a minor degree. That is, to a degree that would be "minor" in a negative made for purely commercial purposes.

At the same time, the negatives must be placed where they can be readily found, brought to court, handled by the uninitiated,—and the ACTUAL DETAILS of how it was made, when, in whose presence, etc., related in unmistakeable language. Thirty years' court experience with documents in disputed cases proves to me that one cannot be TOO CAREFUL with negatives when it comes to trials of cases involving questions of FORGERY.

And it sometimes happens that a handwriting expert of the AA-11 class is called upon to provide as many as 25 different negatives in a single case.

To take care of all these features of protecting negatives; recording the details of how and when and what of their making; of having them instantly accessible in my laboratory without entailing more than a minimum of expenditure of money,—I am today using, with complete satisfaction, the following system:



1. As each negative is taken (11 x 14 inches), I place on the camera stand a thick manila-paper envelope of the "negative-preserver" type,—one end left open by the manufacturer, with a thumb hole punched on that edge.

2. The moment an exposure is made,—successful or otherwise,—I put on the "date" with a rubber stamp. Then I write down (on the edge of the envelope which is to be the top) the "name" of the case ("Smith vs. Jones", or "Peo vs. Smith"); next, the name of the DOCUMENT being negatived. If same document is to be negatived several times, or parts of same are to be negatived separately, a corresponding description is added after name of document. Then I write down the name and number of LENS; the size of STOP; the length of BELLOWS extension; the KIND and POSITION of lighting,—oblique, side or transmitted; and mazda or mercury lamps or daylight; the distance of lens from object-board (approximately); the kind of FILM or DRY-PLATE; the kind of DEVELOPER; the length of exposure; the name of the assistant present (it is my RULE to always have at least ONE assistant present to have some one READY to testify later on in Court, that the negative is a TRUE one, and not in any way "doctored" nor "fabricated," nor "tricked"); and the name of the lawyer or court representative present when the negative is made.

3. Each time a print or an enlargement is made from a negative, the number of such prints, the kind of paper used, the date, etc., etc., etc., is also recorded on the negative-preserver.

4. When not in actual use, the negatives, within their respective preservers, are filed alphabetically, according to the initial letter of the "names" of their cases in a "vertical" Y and E file, legal size; the regular four "drawers" being removed, and their places taken by three drawers high enough to take negatives and prints of 11 x 14 inches. The extra cost of the special drawers is insignificant compared to the convenience of having the negatives and prints WHERE you want them—and WHEN—by the mere touching of a button.

The advantages to myself and others in the utilizing of this system will be obvious to most commercial fotografers. In addition to which,—when a "repeat" case comes along,—that is a case requiring negatives of a somewhat similar character, I have readily available a record of the best lens, stop, time, developer, etc., to use for such cases—thus averting the loss of time and of money in further "experimenting". And with such a large variety of "subjects", it is impracticable for anyone to retain these facts in his unassisted "head".

(To be continued in a future edition)

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

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What Photography Has Come To Be

To such casual souls as take the camera and its use as a mere pastime, or consider it a sort of occasional business of sport, we would tell a few enlightening facts. As, for instance, that among the regular subscribers of Camera Craft are numbered several hundred architects, several hundred musicians, several hundred lawyers, as many physicians as the total of the foregoing, and more business-men than the sum of all of these.

Among the contributors to our pages may be found representatives of most of the professions and of branches of commerce considered wholly practical. To these add the thousands who love photography for the wholesome and cultural effect on the mind, for the pleasure of creating and preserving scenes, events, and persons, and for, the rarer but intenser, joy of seeing the marvels of chemistry exemplified by action of light on otherwise inert substances.

In the arts photography has taken a permanent and important place: Of the sciences it is an essential element; in business it fundamentally upholds modern advertising and merchandizing. As a business it is profitable and has become one of the liberal professions. Men of the highest attainments speak of themselves with pride as photographers and qualify to taking place among the best and most substantial citizens in their respective communities.

The amateur, God bless him, is doing such things as add to both the improvement and glory of an art and science. They venture with undaunted spirit into new ways, they spend time and money unstintedly, and they give of the best within them. Shall we call this waste? The pleasure derived, the advances brought about, the exemplars of beauty created, the incidents made into graphic history,—can we call the time spent for these wasted? The answer needs no telling.

At the recent convention in Milwaukee a prominent manufacturer said, "The Amateurs of the world carry progress on their shoulders. They do the experimenting: They create and in themselves constitute the demand for newer things. Even those of us who deal with professionals exclusively owe a great debt to the dilletanti."

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

The Milwaukee Convention

Another National Convention closed and more history made. Much was done and as must always be the case, considerable remains to be done in the course of the year by the new officers and by succeeding conventions. That a great deal is unavoidably passed on to future time and coming men shows the need of associations.

The success of this gathering may be gathered from the attendance: actually fourteen hundred and six. The program was unanimously accepted as of the greatest interest and profit to all who attended. The broad field covered by the variety of subjects and the knowledge of the specialists who made the talks and demonstrations were commented upon and are topics of conversation throughout the land.

The opening day was devoted to the usual and indispensible amenities. The formal opening of the convention, Business Session, Officers Reception, and in the evening a formal introduction of visitors to one another and to the hosts at a dance in the Italian Room of the Hotel Astor. This was well attended and many were lured onto the floor to trip the light fantastic who had not indulged in so frivolous a pastime for many a year.

On Tuesday, Cliff Ruffner's talk on Advertising gave photographer's food for thought. It should have wakened many a dormant artist to a realization that profit cannot come from hiding one's light under a bushel basket, or by relying wholly on a cold world's recognition of high artistic perceptions and achievements.

William T. Dorward gave what was at one time both an address and a sermon. At a school of psychology the words might have served for text. It was startlingly incisive. The following is an example of Mr. Dorward's best wit and wisdom:

"You know the purpose of a key. It is to use and not merely to talk about. A key is common; a master-key uncommon. You may have followed a bell-boy at a hotel. You saw him open many doors with one key. What was the secret? He used a master-key.

"Men in every walk of life approach doors of opportunity daily. Not every door opens to them. Why? Perhaps the master-key is missing. Where may this master-key be found? We will see."

In his book of the same title the author has given the answer, covering Tact, System, Power, Thrift, Character, Humor, Initiative, Friendship, and Perseverance.

John Vanderpant may always be depended upon to have much that is fine and valuable to say and his practical connection of ideals to every day life and its pursuits charmed while it profited the hearers. The subject was Photographic Ethics and it was soon discovered that Photographic Ethics did not differ much from ethics in the abstract. That honor among men, lofty viewpoints and ambitions, and pleasure in doing the day's work well, are common to all pursuits. Mr. Vanderpant's personality always gives something in addition to his words.

Probably the most practical even of this day was the showing of "How To Photograph Men" by Louis Dworshak. Men are not ordinarily pleasant subjects. Facially, temperamentally, and otherwise. The assemblage was shown how to get the most out of a hard proposition and henceforth those who listened and learned may confidently hope to make even a mere man look pleasant.

Wednesday Ross Crane started the day by telling photographers what is needful in the reception room. This nationally known interior decorator in few, succinct

CONVENTION OF THE PHOTOGRAHERS' ASSOCIATION OF AMERICA

words conveyed a wealth of knowledge. The demonstration was of unusual interest.

Mrs. Helen G. Stage, by right of experience and wisdom, gained in careful deduction spoke of the Receptionist.

George W. Harris spoke on Business For the Photographer. Quite aside from the importance of the subject and the need of its lessons to the average photographer, Mr. Harris brought to the matters dealt with an address and authority that carried conviction and aroused interests which, it may be accepted, will create better methods in many places, and methods of some sort where none were considered hitherto. It is the knowledge, the personality, and the enthusiasms of such men as this what make dry, though essential subjects interesting. The potency of the talk will evince itself in time to come.

Hostetler on Illustrated Illustrative Photography. A unique exemplification of modern commercial photography in its higher aspect.

John Vanderpant gave an illustrated lecture on Pictorial Photography.

Thursday, Robert E. Voiland expanded Simple Rules for Good Portraiture into a most instructive dissertation on rules that were anything but simple till he made them so.

Walter Scott Shinn followed with "Child Photography." There is none in all the land better able to talk on that subject and the speaker held his audience from the start and took them through a charming half hour.

Friday, Ed. Sheasgreen told the photographers of the whole world how to find what a photograph cost. We venture a guess that hitherto many who listened there might not have been able to tell that little thing, and moreover that many who did not attend the convention go merrily on their way not knowing what it costs them to produce their commodity.

Orren Jack Turner talked of Photographing Students. Men who follow this branch of the photographic industry are generally retiring and it is not often that we have an opportunity of hearing from them. Mr Turner had things to say that were well worth the hearing.

A business meeting followed. New friendships were made and old ones renewed and cemented for another year.

There remains only to tell of the election of officers for 1924-25. President, W. H. Manahan, Jr., Hillsboro, N H.; First Vice-President, J. H. Brakebill, Knoxville, Tenn.; Second Vice-President, John R. Snow, Mankato, Minn.; Treasurer, Alva C. Townsend, Lincoln, Nebraska. All of these gentlemen are well known to the profession and have by earnest and self-sacrificing work for the cause earned their distinctions.

A number of cities were left for the con-

HELD AT MILWAUKEE, WISCONSIN, AUGUST 4th to 9th, 1924

sideration of the incoming officers, as likely places for the 1925 convention, and rumor seems persistently to name Cleveland. Wherever it be let us hope and add effort to our hopes, to make the next foregathering greater than any before and in place of 1406 attendance blazon on the banner of the P. A. of A. the figures 2000 or more.

The Commercial Section

Due as much to the indefatigable efforts of Mr. F. Leigh Wyckoff, Chairman of the Commercial Section, who hails from Detroit and calls the world his friend, as to any and all others, the program was enhanced by such special features as Hostetler's demonstration, Dorwald's "Master Key", and the one act sketch written and directed by Mr. Philip Filmer. The cast of this histrionic achievement was George Hance, George Worthington, Al. Wilson, Philip Filmer, William Manning, all of Detroit.

In past years the official photograph was a matter of private business and profit whereas, Wyckoff with the assistance of members of this section, this year made and solicited the official panoram picture. The profits from the sale went into the treasury of the Association for its own benefit and the furtherance of association work.

The gentleman was warmly received at every appearance and at the close of the session members of the Commercial Section presented him with a handsome gold watch. It was a well earned and highly deserved tribute but the wish and the will that went with the token added immeasurably to its value.

The commercial exhibit was unanimously conceded to have surpassed anything previously shown at a national convention. Detroit most deservedly won the cup. It was a marvellous exhibit, being uniformly excellent in conception, execution, and mounting.

California through efforts that outdid, even, its former achievements once more put California on the map in golden poppy hues. Morton and Company winning the silver medal, and Lothers and Young the blue ribbon, as San Francisco's share of honors, and Huntington of Oakland the blue ribbon for the transbay division.

How much was accomplished for the general good may be gathered from the high spots covered in the following summary of open and committee activities:

An Advisory Committee was created for the purpose of formulating plans and policies toward the betterment of commercial photography and photographers and to increase membership. This committee consisted of Laurence B. Morton, chairman; Philip Filmer, and John Garabrandt. A certain amount of work was assigned to each individual and in the fact of their respective residences, the east, middle, and west states were represented.

With rare far-sightedness it was planned to give the members an all year round service taking shape, for one thing, in the form of a monthly bulletin which is to promulgate technical secrets, new wrinkles, special methods, formulae, and general information of value. Mr. Harry Devine of Cleveland to be the editor in chief, assisted by the leading commercial photographers throughout the states. Mr. Devine will be remembered as erstwhile demonstrator of the Eastman School. He is now conducting a highly lucrative commercial establishment in Cleveland.

The formation of a Manufacturers' Relation Bureau was another notable achievement. This will function in finding from photographers what they want and need, what changes in material and equipment they would welcome, and what new things they would suggest. Through the bulletin it will be possible to get a concensus of opinion and so put before the producers with irresistable force such an argument as individuals could not convey. This move has been endorsed by the manufacturers and will get hearty co-operation: It enables them in the easiest and most practical way to keep their fingers on the pulse of demand.

Mr. Morton's usual enterprise and energy were evident at every turn and his cheerful personality will long be recalled with pleasure by everyone with whom he came in contact. Circuit Enlargement Morton created a niche for himself and fills it.

The Passing of J .C. Strauss

On the hour of going to press we receive the sad news of the death of J. C. Strauss of St. Louis. Printers have waited for lesser men and the issue of Camera Craft is held up in honor to one of photography's highest exponents. It is all we can outwardly give in tribute.

Our friend died of heart disease at the age of sixty-seven after an illness of several weeks and there is gone an artist, a philanthropist, a real man. Such a man as busy in the creation of his own success yet found time and inclination to help others to succeed.

We knew him not intimately but well. His ability, his goodness, his high ideals, and all of his great qualities came to us from the mouths of such as knew and had cause to laud him.

In his profession he stood for what is best in conditions and workmanship. He exacted high pay and granted liberal remunerations. Those who worked for and with him loved him. To be so loved by one's fellows is an epitome of rare virtues and a splendid eulogium.

A master craftsman has gone from the earth and master craftsmen mourn a loss that time may cover but cannot easily supply with replacement. May the honor men do the memory of Strauss, in some way, assuage the grief of those nearest to him who are left to mourn.

Requiescat, Fidus Achates.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

Monthly Meeting of the Photographers' Association of California, held at the Press Club, San Francisco, August 11th, 1924

Mr. Lancaster presided in the absence of Mr. Morton. The roll-call introduced each member present to his fellows, in the manner usual with the Association.

The Chairman asked Mr. Young, Chairman of the By-Laws Committee, to let the meeting know something about the work in hand.

Mr. Young replied that, at the present time, everyone was very busy getting ready to go to Portland, so that his committee had had very few meetings, and expressed the opinion that it would be wiser to postpone the drafting of the by-laws until something had been decided regarding the proposed amalgamation; at the same time asking that the members of the By-Laws Committee hold a short meeting at the close of the general meeting. Mr. Young also explained what was meant by the amalgamation, namely, that it had been proposed that the California Association and that of the Pacific North-West join forces with the idea of making a much more powerful organization under the name of the Photographers' Association of the Pacific Coast, with three local chapters, one in the South, one in the San Joaquin Valley, and one in San Francisco.

Mr. Blumann suggested that there was not any intention to lose our identity in the amalgamation, any more than would those in the North, and that the matter of the by-laws would be better developed after the amalgamation question had been settled.

Mr. McCullagh suggested that Nevada, Utah and Montana be invited to join in the amalgamation.

The Chairman: I have now the expressions for which I was looking, which carry out our ideas exactly. What you have said will be very helpful to your committee. I will now introduce Mr. W. J. Van Sicklen, Chemical Engineer of the American Chemical Works, who will give us a talk on "Photographic Developers and Development".

Mr. Van Sicklen: Practical photography has been enhanced very materially by the introduction of modern organic developers. The light-sensitive silver bromide contained in the plates, films and papers, when struck or influenced by light, is transformed into metallic silver by the development which takes place when the developer comes in contact with it. Those parts of the emulsion on which the light has not fallen are not transformed, and those parts which have been influenced by the light in a modified degree are transformed by the developer to a proportionate extent. The portion that remains undeveloped is silver bromide. The hypo bath, in which the film or plate or paper is treated, dissolves the silver bromide, but leaves the metallic silver untouched. What you have left on the paper or film or plate is metallic silver, which may vary in tone dependent upon the way in which the silver is precipitated. It may vary from light grey to black or blue-black, which last is produced by Amidol.

There are many chemical substances outside those in common use that will develop light-struck emulsions on plates, films and paper, that for one reason or another have not come into commercial use in photography. Some of these chemical substances are such powerful agents that they will transform into metallic silver the parts which have not been acted on by light; and, if this cannot be controlled, they are unsuitable as photographic developers. Sodium hydrosulphite is an example. Although some of these sub-

stances are very cheap, they are still useless as developers because they cannot be restrained from producing fog.

With these limitations, the photopraphic developer, to be commercially applicable, must, regardless of price, be able to develop quickly those portions of the plate acted on by light and produce a density duly proportionate to the light action, and this without causing fog incapable of restraint. This naturally limits the number of substances capable of being used as developers for photographic purposes. For these reasons, the simple coal-tar derivatives have come into general use.

The most important of these coal-tar developers are derived or produced from a simple substance, namely, benzene, a product of coal-tar when subjected to dry distillation at a high temperature. It is also obtained in California in the distillation of petroleum when suddenly heated to a very high temperature.

This substance, benzene, while in no sense a developer, is, when chemically treated in the proper manner, changed into phenol or carbolic acid by the addition of an OH. By a further chemical treatment, another OH group is added, and hydroquinone is the result.

If, instead of adding the oxygen and hydrogen in this way, we add them in a somewhat different manner, we obtain Pyrocatechol, which is more along the line of Ortol, which gives much less density than Metol.

Now, if we add another OH to this benzene molecule, we obtain Pyrogallic Acid; so that Hydroquinone, Catechol, and Pyrogallic Acid are very similar substances. They differ only in the number and arrangement of the OH groups.

Now, if instead of putting on a Hydroxyl group in phenol, we put on an ammonia group, (NH_2) we have then Paramidophenol. If we attach this ammonia group in another way we obtain Orthoamidophenol, also a developer. If we attach two ammonia groups, we obtain Amidol, another developer with which we are more or less familiar.

Now, if we take Paramidophenol and place a carbon atom and three hydrogen atoms in the ammonia group, we obtain Metol. If we take Orthoamidophenol, we obtain Ortol. So that, by the modification of the particular molecule, we obtain the various developing agents. Every developer which is in use in photography must have one or more of these OH groups; one hydroxyl or two hydroxyl groups, and so forth. If it has only one, it must also have at least one NH_2 group, that is, an ammonia group. That is one of the most fundamental points to be taken into consideration in working out any developing agent. If a new synthetic agent is to have merit as a practical developer, its molecule must have one or more of these little groups.

I shall not attempt to point out the relationship between the shapes of these molecules, but I may say that the shape determines the properties of each developer as to speed of development, the amount of density produced, freedom from fog, keeping qualities and color of deposit.

In addition to the developer proper, we have to consider some other chemicals, such as Sodium sulphite or Potassium sulphite, and a bromide. Sodium sulphite is used in all modern developers to preserve the developer. This to prevent oxidation, which would destroy its usefulness. Any oxygen in the air coming in contact with a developer, such as Hydroquinone or Metol, is for the most part absorbed by the sulphite, and thus the developer is kept from turning dark or oxidizing, so prolonging its life as a developer.

Sodium sulphite should be free from Aluminia and other compounds that give a precipitate with distilled water. Here are two samples of sulphite, ten per cent solution in distilled water. You will note that one is very much more milky than the other. The milkiness is due to the presence of aluminia and iron. The presence of aluminia and iron is more important from the standpoint of the photographer than the mere purity of Sodium sulphite. Most sulphites on the market run about ninety-two or ninety-five per cent pure. The test for good sulphite is to make up a five per cent solution of the sulphite in distilled water and see if there is a precipitate. This precipitate would be always present in city water, which, in

the case of Metol or Hydroquinone solution, would cause appreciable loss. A very small content of aluminia might take out a large quantity of Metol or Hydroquinone by causing these chemicals to precipitate and the quantity of these potent agents in the working developer would be very much less than you supposed.

Sodium carbonate is used to liberate the active developing agent from the salt form in which it is used as in such form it is not a very active agent. Metol without carbonate is scarcely active at all. The carbonate also functions in another way, in that it swells the gelatine, thus allowing the developing solution to diffuse itself in the emulsion; so that, by these combined actions the rate of development is very much increased. In the case of Amidol the action of sodium carbonate is too violent, sodium sulphite being sufficient.

Sodium carbonate, like sodium sulphite, contains aluminia, and that of course should be taken into consideration in testing materials. In testing carbonate you may determine the effectiveness for your work by taking some of a solution in distilled water and ascertaining the amount of settlement you get from it. The well known brands on the market differ very little and vary only from ninety-three to ninety-five per cent, in fact none are above ninety-five per cent.

Bromide of potash is used for the purpose of preventing the silver bromide which has not been acted upon by light from being transformed into metallic silver. Hydroquinone and Metol will transform the unexposed silver bromide to metallic silver, in other words, produce fog, unless some bromide is present in the developer to prevent the fog from being formed. The action of the developer is a chemical one. So that, when it comes in contact with the emulsion where it has been exposed to light, it removes the bromine, leaving the metallic silver in the emulsion.

The importance of a developer, commercially speaking, is dependent to a very great extent upon the speed with which it will develop the latent image to a given density. If we do not take into consideration the price of the developer, Metol leads the list among common developers, although Amidol ranks very close in this respect.

Another point of very considerable importance is the power of the developer to reduce silver bromide to metallic silver. In other words, it is the amount of silver in pounds reduced by one pound of the developer that determines the efficiency and economy. In the case of the American Chemical Works' Metol, on account of its high purity, one pound will reduce when used under ideal conditions, slightly more than three pounds of metallic silver, and this, spread over paper or plates, will cover several hundred square feet, the actual amount depending on the thickness of deposit.

So that the developing power is a very important thing to the photographer. Although he does not use up all the developer, he does want to know how far that affected by developer will go in producing a given number of sheets of paper, or plates, or films. Now, the manufacturer of course determines this to a great extent by the purity of his product.

Hydroquinone develops more slowly than Metol, Metol more quickly than Pyro. Hydroquinone develops more silver than any other developer known. But, of course, the character of this deposit is not always just what is wanted.

Another important thing is the life of the developer, the period over which it may be used satisfactorily. This is of the greatest importance, particularly where quantity production is measured against material costs, such as in the motion picture industry and in commercial finishing.

The ability of the developer to stand up under continued use is something that we manufacturers of developers consider of the utmost importance. It is met by having the developer, whether Metol, Amidol, Glycin or Hydroquinone, of the very highest purity, especially the fast ones, such as Metol.

It may happen that, in certain tank work, a developer may be required to be used for several weeks or a month of time, and therefore the life of the developer, the capacity to stand up for a long period of time as well as for a large batch of

material is a characteristic which should be watched. The developer should also be snow white, because the presence of any colored products in a developing material really cannot be developing material itself, because as soon as colored products are formed it is deteriorating.

The color of the image is a matter of very considerable importance in the case of photographic papers and motion picture film. This is a feature that segregates the different developers as much as anything else. Hydroquinone falls down materially when used by itself not giving satisfaction for positive prints or motion picture positives. Paramidophenol salts produce a grey silver deposit, Metol a little darker, Hydroquinone gives a hard black, and Amidol a blue black. Chloride papers, being made with a chloride compound, will produce a sepia; also by the use of a Chloro-Hydroquinone we may have colors ranging from grey through to blue blacks which are due, not to the fact of different chemical compounds but to the fact that the silver in each case is deposited in a different sized particle, the particle itself determining the tone.

Another phase of developing might be of interest to you; that is, the production of positives instead of negatives. This is done by the Eastman people in the transformation of the negative in motion-picture work into a positive, and is, of course, done by a different course of development. The negative may be developed in Amidol which is, as we have found, a very good developer. After development, it is treated with acidified permanganate which reduces the silver particles, in fact, removes them entirely. Then the white silver bromide which remains is treated with hydrosulphite and is developed so that what were white parts in the negative are developed into the black parts, giving us a positive. This is much cheaper than making a negative and printing from that.

In answer to questions, Mr. Van Sicklen said:

As to the superiority of potash carbonate over sodium carbonate, I think there is virtually no merit in potash carbonate over sodium carbonate.

Bromide should be used with considerable discretion. It is necessary to use bromide with hydroquinone, but too much will cause it to lose its proper tone, and so in a less degree with other developers. Bromide will curtail the quantity of negatives that can be dealt with by a certain amount of developer. It is well to remember that, during development, bromide or bromine is constantly accumulating as a solution from the negatives in process of development, so that an over-quantity to start with will retard your work, and give you a bad color in the case of prints.

One of the characteristics of Glycin is that it is virtually insoluble in water. In order to dissolve it you have to use sulphite or carbonate. It develops very clearly, free from fog, and the image is particularly clear in the low tones, or shadows, and all the detail is very well brought out, and the life of the Glycin bath should be very long. In one laboratory in Hollywood they have used it for both negatives and positives; and in the production of Robin Hood, any of you who have seen the picture, will recognize that the quality of the work was very high.

Potassium carbonate in the bath instead of sodium carbonate you think makes a softer image? I do not think so, if the same percentage of each is present—I do not think there would be any appreciable difference.

Bleaching in the hypo bath might be caused by the bath being wrongly compounded. Probably too much acetic acid or too little sulphite or possibly free sulphur in one or more of the materials.

Mottled sky in tank developments would be caused by the chemicals not being in complete solution or by not washing out.

Amidol gives a very high contrast, in fact, the highest contrast of any ordinary developer. Hydroquinone alone, unless considerable carbonate is present, gives a flat print with a tendency toward fog. Used with Metol the contrast is increased and the foggy tendency diminished.

Note

Owing to the mass of reports from the National Convention and the comprehensiveness of Mr. Van Sicklen's talk, the remainder will appear in the October issue of Camera Craft in this department.

For the Professional

In the Interest of Commercial and Portrait Photographers

A Miniature Photographic Darkroom

Necessity has mothered many an inspiration. This trite exclamation was brought to mind by the sudden need of providing darkroom facilities when our commodious attic quarters were closed in order to lessen fire risk. Two alternatives suggested themselves, either to partition off a corner or to construct a portable light-proof developing box. Past experience with small stuffy darkrooms was recalled, and the writer accordingly undertook to build a dark box as a venture. The convenience of this box, its adaptability to many photographic purposes, and the successful results following its use have led to the publication of this announcement in the hope that others, at present deterred from attempting photography through lack of facilities, may find that the way is easily open.

This miniature darkroom is constructed of pressed wood-pulp board nailed over a light wooden frame. Dimensions of 36 inches for width 24 inches for depth and 40 inches for height have proved to be entirely satisfactory. At the lower part of the front face an opening of about 24 by 10 inches admits the arms and hands of the operator. This opening is rendered light-proof by two thicknesses of close-woven black sateen cloth continuous with two sleeves. By having the cloth considerably larger than the opening and shirring the edges, free movement of the arms is afforded by the bulging central portion. The ends of the sleeves are close fitting by elastic bands. Black sateen bloomers can be bought ready made and are of the exact pattern and size, with shirring and elastic stings ready for attachment to the box. Because of looseness of weave, two superposed layers of cloth should be used.

The top of the box has a removable light-tight cover. This is made possible by tacking a tongue- of half-inch stripping around the edge of the cover to fit into a trough at the top of the walls. The tongue and trough are painted matt black, a little lampblack in weak alcoholic shellac answering for this purpose. The interior of the box need not be painted, although a white coat affords a better view of manipulations in the interior.

To view what is going on inside the box two small windows are provided at the level of the eye when the box is set on a table. The window in front is of clear ruby photo-safe glass, the one opposite is either of ruby glass or translucent ruby fabric. Behind the rear window is placed an electric bulb operated by a switch inside. Another inside switch controls a socket on one wall which may interchangeably have a low candle-power light for lantern slide making or a high power light for exposing development papers. A shelf located midway across the end is an added convenience. The entire cost for materials is five dollars; a few hours of labor can construct the box.

A secret of continued success in using this small darkroom is to keep hypo away and thus avoid contamination. This is possible by having a tray containing weak acetic acid, about 2 per cent, into which is to be immersed plates, slides, films or prints as fast as they are developed. The acid checks the action of the developer and permits the quick removal of the light-sensitive materials from the developing box to the hypo bath outside without danger of fogging. Developed material can be left in the acid bath until it is convenient to open the box.

The idea of a developing box is not new. There are small developing tanks and boxes on the market for daylight use by the time method of development. Convenient changing bags of cloth have long

been employed by the traveler. Developing boxes equipped with sleeves and ruby glass are available with X-ray outfits. Undoubtedly the urgency of the war period for rapid photographic production led to the construction of portable darkrooms. But the simplicity, adaptability and convenience of the above-described miniature darkroom are so great that the writer will be pardoned, even though his discovery is not new, if this announcement will acquaint others with a worth-while piece of equipment. A. L. MELANDER

Increased Use of Photography

Looking over the publications devoted to printing and advertising we were impressed by the number of illustrations purely photographic in origin or modified from photographs by wash and line drawings. When a journal like the "Inland Printer" gives its readers an occasional treat by reproducing straight photographs as examples of press work, we feel encouraged to believe the letter press is exploiting its ability to make photographs available to the users of printed matter.

"Printers Ink" in its monthly form is rich in examples of the application of the camera to the uses of the printer and the advertiser. "Western Advertising" is a publication devoted to the newest and best of the subject which its name suggests. From its pages we gather the following specific examples of what photography is supplying to business.

Harry J. Wittschen, a large advertising concern, on account of the "Philadelphia Evening Bulletin" reproduces the full front page of one edition of that paper in the form of an open door. A pretty girl is holding the knob and through the aperture one views a part of the city. The Foldwell Paper manufactured by the Chicago Paper Company is popularized by photographs with hand drawn borders and ornaments. The "Detroit News" uses the pose of a very pretty model reading one of its issues. The railroads almost limit themselves to photographic composites.

Photography may or may not be one of the fine arts. The question has not yet been debated into a certainty. But there is no basis for argument as to its being an essential part of the graphic arts.

Commercial Photographers of Long Beach

The live business men of Long Beach, California, who constitute that part of its activities, have organized into a live and going Association, and the following notification received from Mr. L. J. Inman, its Secretary-Treasurer, will be informative:

"We have at last started on our organization, and things look fine for a good strong organization. We are not many as to numbers, but believe we have quality. We shall certainly try to qualify up to the best. At the meeting, last night, held in my offices, we elected the following officers: Joe Amson, President; H. M. Reithner, Vice-President; L. J. Inman, Secretary-Treasurer; to which list let me append the names of those who attended: Joe Amson of the Auditorium Studio, A. T. Brown and W. P. Ward of Winstead Brothers, C. G. Duffy, E. C. Ingram, L. J. Inman, W. H. Raymond of Weilenman and Raymond, H. M. Reithner, G. M. Stocking.

"We intend having an exhibition in the main library sometime in the early fall showing some of the work done by local commercial photographers and proving to a cock-eyed world that we are here and doing."

Taxation That Seems Discriminatory

Photographers are the only business men who are compelled to pay a tax on the apparatus they require in earning a livelihood. It is a direct levy on their tools of trade and no argument as to the purchases of amateurs can change the basic fact. All purchasers of shovels, and hammers and monkey-wrenches are not professional diggers, carpenters or plumbers.

The excise taxes on cameras and lenses can be repealed only by act of Congress. Congress is your creation. You, the citizens, elect its members and those members are your representatives, ordained and constituted to enact your will and further your welfare. Write your congressman. Write him again. Let him know you are vitally interested.

The protest of thousands of constituents will certainly have an effect and bear more directly on the matter than the efforts of a comparatively few manufacturers who may be accused of having interested motives.

The Amateur and His Troubles

Conducted by Sigismund Blumann

The Choice of a Camera

To the glory of photography and those connected with it, be it said that of all trades none depends less on false claims and bunk than that of the manufacturers' of photographic instruments and supplies. The catalogs and manuals put out by camera makers will be found to be useful and reliable text books on the subject in hand. Moreover the price lists give the prospective buyer an idea of what he cares to get and so to govern his first choice.

It were well for every novice to begin cheaply, simply, and work through a proficiency with low priced apparatus, through the scales of relative superiority and higher prices, to the ultimate best, according to taste and need. From a little box camera to a view camera with every known adjustment, or a Graflex is a complete course of progress.

It should be given as a prewarning here that no one camera covers every need. Each is peculiarly fitted to excel in some particular way to some especial purpose. One may adapt any to a general use but the fact remains that a View Outfit is not as efficient for, let us say, rapidly moving objects to be snapped on a second's notice, as is Graflex. Let none expect his equipment to do things beyond its limitations, or to supply what the user lacks in knowledge, experience and resultant skill. The best tools may give the best work but all tools are alike useless in the hands of the bungler.

The Box Camera

This is the simplest and cheapest form of camera made. It is a neat box, and is furnished with a fixed focus, single meniscus lens, and a three speed shutter. Of lenses we shall speak in future installments. The speeds are, Instantaneous (about 1/25 of a second), Time, which would mean one pressure to open and expose and a second pressure to close the aperture, thus completing the exposure, and rarely what is called Bulb, in which case the pressure open the shutter and letting go closes it.

The aperture is the opening through which the light passes. On the Box Camera there are as a rule three openings: Largest for Instantaneous, Medium for bulb, short time, or very bright light in the sun on open landscapes or water.

Such an instrument may be had for as low as one dollar and we have seen Salon winning pictures made with one that cost little more. In fact our own youngest, when about eight years of age achieved some very creditable photographs with a dollar box. The cost of the films and for development thereof are proportionately low priced. With so little in the way of adjustments and complications to divert the user it stands to reason, that this outfit permits of studying the nature of the picture, lighting, and so forth. A gain in experience which shall prove invaluable in later, more ambitious efforts.

The Bellows Camera

The lower form of this would consist of a short extension, allowing the accurate focusing, which is seen on a ground glass at the back, a single meniscus or a rapid rectilinear lens, and a diaphragm shutter. As previously stated, lenses are to be covered later. The diaphragm is an ingenious arrangement of leaves overlapping so that by a twist of the barrel or the moving of an indicator the opening may be made larger or smaller by minute degrees. Such a shutter usually has graduated speeds from 1 second to the 1/150 of a second, as well as time, and bulb.

It has been said that the image may be viewed on a ground glass at the back and this is true of the View Type, but the roll film sort does not offer this convenience. Instead, there is what is called a finder —a little camera—which approximates the

image as it will appear on the negative. The loss entailed by not being able to see the exact picture on a ground glass is compensated for by the convenience and lighter weight of the roll-films.

These higher type of instruments permit the installation of highgrade lenses, such as Anastigmats, Diffused Focus, and Telephoto. By the time the amateur has reached the stage when he is competent to use such things they will hold but little mystery for him.

The Reflecting Camera

To many minds these exemplify the highest type of all. They are known by various trade names, all suggestive of their mirror form of throwing the image onto a horizontally placed ground glass through which the image may be seen up to the very fraction of a second of exposure. The view coming through the lens impinges on an optically true mirror and is reflected upward through the ground glass. These cameras are almost invariably equipped with Focal Plane Shutters, also called Shutter-blinds. Such a shutter is very like the roller shade on your window, as both work on a roller that winds up actuated by an internal spring. This blind is slitted at intervals with opening running from side to side and of various length. The aperture is selected by turning one knob, the speed by turning another which determines the tension of the spring. It will be seen how a great number of speeds may be produced by varying the opening and the tension. Such a shutter can give a speed equal to about 1/2000 of a second, which is fast enough for any purpose short of rare and extreme scientific tests.

We have known of a beginner who insisted on starting with what he called the best to be had. He provided himself with a Graflex type and a high-priced anastigmat and before becoming disheartened wasted a small fortune in materials. For, take notice, these are some of the things this outfit offers in the way of possibilities, good or bad, as you may know or may not know, how to avail yourself.

The diaphragm opening of the lens to determine definition, and perspective, and atmosphere. The tension, to determine the speed of exposure. The slit opening, to select the amount of light to pass at the speed at which the shutter-blind moves. These, remember, in addition to having to keep in mind the need of removing the plateholder slide, or of turning to the next film. There are just so many ways of getting just what you want and can get no other way; and just so many ways of tripping up and misusing them to spoil good material.

Once more, let us impress you with the advisability of getting the catalogs and the price-lists, and of studying them. Get books on lenses and study them. Keep these little articles and study them in relation to what literature the dealer and manufacturer will gladly give you free, and having decided on a choice, study your instrument and learn to use it in every way within the limitations of which we spoke.

Rapid Hydroquinon Developer

The scarcity of Metol during the war brought forward a Hydroquinon developer which is as rapid as any containing Metol, and which, under the usual temperatures, builds up faster. The ease with which coal-tar derivatives may now be gotten has relegated this developing formula once more to oblivion. We resurrect it as giving beautifully modelled and grainless negatives, fit for any enlargement.

Water	32 ounces
Sodi Sulphite	1 "
Hydroquinon	150 grains
Ferrocyanide Potass.	75 "
Sodi Hydrate	300 "

Between development and fixing wash for a minute or two in the following solution:

Water	32 ounces
*Bisulphite Sodi	½ "
Sulphuric Acid	1 dram

*The Bisulphite should be made into a saturated solution and of this one-half ounce be used.

A fair warning to users of any developer containing the caustic alkalis (Sodium or Potassium Hydrate) would be that in dry dilution the solution is apt to affect the skin disagreeably. Use rubber finger cots or a print tong.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

The Still Development of Bromide Positives

Some years ago it was considered quite the thing to "tinker with" one's developer in order to control the resulting print or negative. This has largely given way to more standardised methods, the desired results now being got more by selection of emulsion and time and temperature of development. The idea that "tinkered" development is of any use has quite died out in some quarters even, but as a matter of fact there is some life in the old dog yet, and I hope here to show that there may be usefulness at times in departing from the strict letter of modern technique.

For many years I have known printers to lift a print out of the dish when half or quarter developed and let it lie on a clean surface or in a dish of water to finish itself off. I have done the same thing thousands of times myself, believing that a softer and more detailed result was got. Recently, however, doubts entered my mind. Had I been fondly following an old-time fetish which was in contradiction to the scientific data available to-day? To make quite sure I prepared a series of prints, taking no special pains to vindicate my own ideas, but knocking off the prints in the every-day way of business from the first negatives to hand. I am submitting these prints to the editors, but the points they illustrate are a trifle too fine for reproduction, I fear.

A number of prints were made with the same exposure on a hard bromide paper. The negative was about the hardest that that paper would stand. Some were developed in a normal amidol solution in the usual way. The others were merely soaked in developer and then placed in a dish of clean water, there to lie absolutely still until fully developed. Development in all cases was judged by inspection and the exposures were on the full side. There was a plain difference in the results. A print made on soft bromide was flat looking, and the still developed print on hard bromide provided a nice "in between" which might have been preferable to either of the orthodox results. I say might, because, after all, this is a matter of taste.

To make sure that the exposures were not at the root of the difference, a print was exposed and cut in two. Again, the different methods of development gave different results, one much softer than the other. With short exposures, something very like a high key result was easily got, though the negative was not the ideal sort for high key prints.

The essential difference in two prints developed, one normally and the other by the still method, lies in the nature of the deposit. This is easily seen by transmitted light, and suggests an ideal way of making fine lantern slides. Not having tried slide development in this way as yet, I must leave it at that. The difference can be proved very strikingly in another way. Two prints, and also two sections of the same print, were toned by the accelerated system. One full print and one section had been developed in the usual way. The other print and section had been developed in the still fashion. All were fixed for the very shortest time that might possibly serve. The print which had been developed out in amidol toned comparatively slowly for this process and gave a cold result, showing evidence of bad fixing. The same applies to the developed out section of the second print. But the other print, developed out in water, toned rapidly to a nice warm chocolate, showing no defective fixing.

My conclusions are that we have a method of control which might often be useful. Negatives crop up which do not give an exact degree of softness or brilliance with any paper on hand. By still development, a softly brilliant print will

take the place of a harsh one. For high key work this seems to possess possibilities. For toned work it certainly facilitates matters by reducing the fixing time, and thus giving a greater degree of certainty as to fixation, and in allowing more rapid action in the toning bath. For transparencies also there would seem to be some advantages, but as I have said, I have not yet tried this out. —Thermit.

(N.B. I have used it for lantern slides for a long time. It is excellent.

H. D'Arcy Power.)

The Washing of Plates

I have already referred several times to this subject, and in particular to the work of Lumiere and Seydewitz, and I return to it again because the matter is of such great general importance to amateur and professional. Mr. K. C. D. Hickman has been lecturing on this subject before the Royal Photographic Society in London, and the experimental work described not only confirms the previous investigations as to the rapid elimination of Hypo from plates and films, but also brings into relief other factors not considered, but of no less importance.

One of the first points demonstrated was that in the ordinary washing of plates and films more time is taken in washing off the hypo from the surfaces of the container, than in removing the material from the gelatine. Thus, when a negative was suspended in water flowing immediately away, the hypo was entirely removed in from three to eight minutes, this being exceptionally true of the kodak panchromatic film. The nature of the bath markedly influenced the results; thus an acid hypo bath requires only two thirds of the time of plain hypo, whilst, on the other hand, the employment of an alum hardening bath doubles it. I might remark that this is in accordance with our knowledge of the effects of acids and salts on animal colloids. If gelatine is allowed to swell to its limit in cold water, and if then an acid be added, it will take up as much as four times the quantity of water; if now a neutral salt be added to it, the gelatine will shrink and expel the water. Naturally the swollen gelatine allows of more rapid permeation by the wash water. Mr. Hickman states that if formaline be substituted for alum as a hardener, the prolonged washing is not necessary. The reason is the same; formaldehyde added to watersaturated gelatine will cause contraction after many days, but not at once. It has been my hardening agent for years, and the only objection that was found to its use is that if employed between development and fixation it is necessary to well wash out the developer before hardening, otherwise the formaldehyde may act as a further reducer. Mr. Hickman further proved that long washing is not only unnecessary but detrimental as harmful substances can be taken into the gelatine film from the wash water.

Lastly, the material of which the washing tank is made is also of importance. Lead holds hypo in the tank. Glass or porcelain surfaces are therefore the best. From my own observations I am convinced that the shape of the tank bottom is another factor. If a solution of dye be washed out of a square-bottomed container it will be found that the dye leaves the corners very slowly indeed—ergo, there should not be square corners.

The practical value of this investigation is summarized by Mr. Hickman's statement that for years past he has not given more than four minutes washing to his plates, and no harm has resulted.

Ultra Rapid Plates and Films

It is notable that British manufacturers are putting on the market, plates of a speed that goes beyond what had been thought possible a few years ago. The British Journal of Photography, in a note under the heading of "New Materials" states that the great speed has in nowise impaired the qualities of density and contrast, that development is rapid and that there is no unusual granularity.

These emulsions are being marketed upon film as well as glass base, which would seem to convey that the advantages are available for outdoor use as well as for the studio.

Should the American demand become insistent and reach the manufacturers of the United States there is no doubt but that the consumer will be able to find domestic ultra rapid emulsions on the shelves of his supply house.

Notes and Comment

Dassonville Paper Company

We have been shown absolutely irrefutable evidence that Charcoal Black has been sold to its capacity and grosses beyond. The new plant assures that the demand will be satisfied and the output increased to meet even peak loads. Never were we so astonished at things pertaining to a factory as when we were shown the intricate chains, cams, rolls, tanks, and delicately adjusted instruments of measurement in the new Dassonville establishment. It was our impression that paper was coated and dried and cut. Then came the mere merchandizing. Not at all like that. There are items of temperature, humidity, catalysis, statics, and what not. We may not have the terms correctly but they will do as well as any. We will undertake to chronicle to a world of laymen that making photographic paper is a real job.

University of California Extension

Several courses which might be of interest and should certainly be profitable to photographers are announced by the Director of the Extension Division of the University of California. It will be noted that the more important to our readers are so timed as to offer no interference with their days of business.

Six Trips Afield beginning Saturday, September 20th, 2:30 p.m., 260 Pacific Building, San Francisco, Dr. Harold C. Bryant, Instructor.

Nature Study for Teachers—The Vertebrates — beginning Tuesday, September 16th, 8 p.m., 252 Pacific Building, San Francisco, and Monday, September 8th, 8 p.m., 302 Extension Center, 1512 Franklin Street, Oakland, Dr. Harold C. Bryant, Instructor.

Photography, beginning Tuesday, September 4th, 7:30 p.m., 260 Pacific Building, San Francisco, Ralph Stuart Browne, Instructor.

Sheet Celluloid

It is not generally known that celluloid may be had in the open market in all the photographic colors as well as in matt or ground-glass finish. After breaking a few panes of ruby or orange glass one is prepared to hail as a blessing the unbreakable sheets of tough and transparent substance which not only give safe-lights of red, double-dark red, deep orange, pale orange, and yellow, violet, blue, and green, but at one-quarter the cost of glass.

The matt serves too many purposes to enumerate them at this time, but the following will prove suggestive: For removable retouching and control, for drawing in backgrounds, for diffusion both in printing and lighting, and in narrow strip for lettering.

A Remarkable Photograph

In our advertising department will be found an example of what modern equipment can achieve. The Areoplane view illustrating the Harold M. Bennett page could, sans suspicion of covert exploitation, have appeared in the body of our text with interest and profit to all. This snap-shot was made with a Carl Zeiss f 4.5 Tessar of twelve-inch focal length from a height of over six miles and, we are told also, at a temperature of sixty-two and one-half degrees F. below zero. Fact and human courage outstrip credence.

Heyde's Actino Exposure Meter

So many of our readers have written in for direction sheets for this meter, and prints of same seem impossible to get, that we reprint from the original loaned us by courtesy of Mr. Wolff of Hirsch and Kaye.

Instructions for Use

1. Bring the index upon 1 by turning the rim of the moveable bottom of the Actino-Photometer.

2. Look through the eye-piece of the instrument holding same between thumb and fore-finger of right hand.

3. Watch that part of the object which is of most interest to you and requires therefore the most exact time of exposure, paying special attention to the shadowy spots, details of which you wish to show on the plate.

4. Turn the index with your left until the shadows begin to vanish. Read off the scale the figure of this position. With the aid of this figure the correct time of exposure for the most current apertures is taken from the corresponding column of the table on the instrument.

5. If you wish to verify the result thus obtained, direct the Actino against the same part of the object; begin the observation at the maximum position 8 and reverse until the object just appears. The average of both readings is the exact figure.

6. The data given for the Actino apply to the most current plates or films of a sensitiveness of 25 Warnerke or 200 H. & D. For plates of 22½ Warnerke or 100 H. & D. double the time of Actino exposure and for 27½ Warnerke or 400 H. & D. take its half.

7. Those wearing **spectacles** must keep them on when working with the Actino or have their instrument fitted with a small piece of glass corresponding to the lense of their eye-glasses. This can be done by every optician at small cost.

8. When using a **yellow screen** the latter is simply put in front of the Actino during observation and the correct time of exposure found as stated above.

9. In the **summer months**—(also in the **tropics**)—turn the indicator that far that the darkest spots observed disappear entirely. For **snow-fields, sky**—or **sea**—**views** take only half the time shown. For **very distant views** (over 1000 yards) turn the index until the horizon or a prominent bright object very far off disappears entirely. If the figure indicated is above 4 take half the time of exposure.

10. For **interior views** observe the instructions given under 3. Pay special attention to the prominent shadows of the object.

Ernemann Folding Reflex

An extremely interesting broadside comes from the house of Herbert and Huesgen picturing the new Ernemann Folding Reflex Camera Model one and two, and it takes only a glance to note several novel features which simplify operation and increase efficiency. The compactness alone should appeal to intending purchasers and the built-in shoulder strap attachments and outside shutter and tension tables are conveniences which will impress those familiar with instruments of this class.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

Camera Pictorialists of Los Angeles

Before us is a little pamphlet purporting to be a magazine. Its claim is modest. "The Pictorialist" is an achievement. It is one of those little monuments that mark the road of life and show where here and there someone has been brave enough to try, and great enough to succeed. We note this little book comes with the Compliments of the Camera Pictorialists of Los Angeles—a doughty, close corporation sort of bunch—but fine fellows judging from those of them whom we know. We return the compliment whole heartedly, but choose here and now to accredit John Stick with all the honors. To explain, we reprint page fifteen verbatim and in full. But before doing this let the reader get the glory of the sentiment on the back cover:

The Salon has lifted Photography from the realm of Chemical Curiosity and placed it among the Graphic Arts.

Follows the text of Page Fifteen:

A little 4x6 printing press, (a Xmas present to my son), suggested the idea of

this brochure. So we traded the little press for a 7x11 antiquated press. Then we bought font after font of type, cases, and a hundred other things. All sorts of mysteries in type-setting were encountered during the hours and hours we spent at the type cases. At last we passed the middle of the booklet and were ready to print. Plenty of new troubles arose. Gum printing seemed simple compared with printing. It is needless to say that we printed pages 8 and 9 first. They look it. You can easily trace our progress towards the cover as we learned how to overcome our difficulties. Before we were thru, we bought a modern press. In our future editions we hope to do better work. Accept this booklet in the spirit in which it is published. The many hours of labor were cheerfully given in the hope that someone may find something in it that will help them in their work. In that event we shall feel well repaid for our effort. Cordially Yours, John C. Stick.

Pictorial Photographers of America

No organization in all America has the potentialities for good of photography as an art that is possessed by the P. P. A. And we dare say that no other organization has done as much since Steiglitz woke us to the possibilities. Old Steiglitz is variously thought of, and the belated honors accorded him do not come as sweet news to everybody, nor do all the pictorialists look back on their former officers and founder in quite the way earned by the pioneer work, heartsickening discouragements, financial sacrifices those brave souls lavished on a dream. The society itself has achieved much, is achieving much, and will achieve much more. But it seems to be ailing just now.

From a circular letter lately received we learn there is a rather large debt, and a very much larger delinquency list. The shame is not of the organization but of its careless, heedless members. Personal emotions, interested motives, sordid considerations have no place in any purely artistic union. The cause is always greater than the individuals. All men may not win prizes and renown, but most of us can attain to some proximity to deserving the company of the eminent. Let us not be galled and envenomed that others shine where we can only reflect but help them to better, greater things, and strive onward for place.

Some there be who fear a photographic aristocracy. Let such become more active, more prompt in paying, more jealous of their voice and vote and with the force of these help to shape the destinies of their society to the best ends. Sooner or later local, district, and state branches will come about that shall bring the feeling of active participation to the members' very homesteads. It's a consummation devoutly to be wished. Meanwhile, if the brief mention here of the facts can do any good in waking a numerous and widely dispersed membership to a sense of pride and duty, we shall be elated.

Acrostic

"SALON"

I.

S stands for "Surely Mike, I know I ought to win,"

A stands for "Aw, go on! These Juries are a sin."

L stands for "Laughable" and also "Lowered taste,"

O stands for "Oh, that thing is just a wanton waste,"

N stands for "Nevermore, I'm through, and that's the truth."

II.

S stands for "Some fine day I shall succeed, I know,"

A stands for "Anyhow, I'll try though I be slow,"

L stands for "Let's be friends and helpful as we can,"

O stands for "Once I've tried, I'll be an always ran,"

N stands for "Not a thing shall stop me till I win."

L'Envoy

Which one of these seems right and true
Determines which is you. S. B.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

SIGISMUND BLUMANN, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXII OCTOBER, 1924 No. 10

How I Came to Make Pictures of Cats

By Cornelia Clarke, Grinnell, Iowa

Illustrated by the Author

As a baby the first word I uttered was "Cat," and as I grew older cats were my almost constant companions. I played with them from morning till night and then sometimes cried because I could not take them to bed with me.

I made clothes for them such as most little girls make for their dolls. Sometimes there were as many as twelve to care for, but never even one too many. My usually indulgent father might say that some of them must go or the place would be "overrun with cats," but I would look them over and decide that I couldn't possibly part with any of them. In a few days, however, a few of them would be missing. They had a play-house and soon learned to run to the table whenever the bell rang for dinner. Each cat had a bed of his own and was all snugly tucked in at night but to my distress they wouldn't sleep alone but always wanted to pile up together, especially in the winter time.

My childhood days were spent on a farm with father and, not having any brothers or sisters, my mother having died at my birth, perhaps the cats took the place of many things which other children have. Anyway they afforded me great pleasure as companions and playmates.

Father's boyhood hobby had been photography and he still, occasionally, makes a few pictures. It was one of my joys to be allowed to enter his dark-room and watch developments.

It was always a delight to see him get out his camera and I usually stood by taking in all the details of manipulation. One day while he was gone to town I secured his camera and decided to make a picture of my own. I covered a chair with an old table-cloth, placed four of the kittens in a row upon it and carefully set it by the window, proceeding to take their pictures, beating meanwhile upon a tin pan with the poker to attract their attention so they would not move. I carried the plate to my father's dark-room and developed it just as I had seen him do, and was so pleased with the result that I kept on taking more pictures until I had used up all of the developer.

THE MUSICIANS GOING TO MARKET

TEA FOR ONE
VALENTINES FOR SALE

CORNELIA CLARKE, Grinnell, Iowa

When father returned from town he was met with an immediate and urgent request for some "more of the stuff in that tall bottle in the dark-room."

I made prints of my cat pictures and sent them to my aunts and cousins. They appeared to be so pleased with them that I was encouraged to make more and still more until a collection of over three hundred pictures was achieved, and am still taking more.

It was not always easy to get the cats to "stay put" but by patiently and kindly putting them back whenever they moved out of the desired position it was possible to make them understand that they were desired to remain just where they were placed. I would also reward them with

EASTER LILIES
THERE'S A FLY IN MY MILK
THIS HAT FITS ME
THE EGG MERCHANT

CORNELIA CLARKE, Grinnell, Iowa

pieces of meat or bread soaked in cream whenever they did anything just right, and they became so docile that they would come to the usual table and pose voluntarily.

The pleasure the pictures gave my friends added to the enjoyment I derived from making the negatives and prints. My cats and myself were brought into closer understanding and a sort of deeper affection grew between us. Photography held a new interest, which, if the little animals could not divine otherwise, they did sense through the exuberance of their mistress. I hope others may try as I have and succeed, as they probably will, better.

One more idea and I shall have finished. As the holidays approach Christmas and New Year cards, Greetings, and a dozen different adaptations may be made of animal pictures. To this purpose I hope my little cats may have stimulated a wish and suggested a way to making gift cards at home. A labor of love always best conveys a message of love.

On the Hanging of Photographic Salons

By Karl Struss, Hollywood, California

On viewing several photographs illustrating the method of presentation of Pictorial Photographs at a recent Exhibition of Pictorial Photography, one cannot but feel compelled to utter emphatic protest not only against the method, but against the putting forward of propaganda to establish the "method."

Rome was not built or destroyed in a day, and likewise the achievements of individuals who have had the best interests of Photography at heart, especially as regards the hanging of Photographic Salons, cannot and will not be overthrown in a day by unenlightened Salon Committees.

To say now that photographs should not be mounted according to what has come to be an established custom and to put forth methods that were tried and discarded as inadequate and unsuitable twenty years ago, is retrogression of the worst kind. Imagine, if you will, the chaos that would result, if what is considered the standard mount for an Etching were to be changed in the same manner as suggested for Pictorial Photographs! A mount is an integral part of a picture, and if that is to be changed to conform to all the different kinds of walls of Art Museums, then we will have a uniformly (sic) hodgepodge method of presentation! Possibly Museums next will be sending out samples of their wall covering so the pictorialist will make his prints to harmonize!

If after hundreds of years, the method of presenting Etchings could be improved upon, the change would have to be, not only an improvement but a very gradual one. So too, with any "improvement" over the accepted way of mounting and presenting Pictorial Photographs for exhibitions. How the inherent qualities of a print may be enhanced by the application of thumbtacks, (no matter how "artistic" they may be), to the corners of a "plain narrow border" supporting a print, is incomprehensible. Also, one cannot perceive the addition to the quality of the print by the attachment, with commercial clips, of white paper slips showing such information as "Print Number, Title, Author's Name, Process employed," which should only appear in the catalog.

Then too, the use of the phrase, "Prints will be shown under glass," does not lead one to suspect that the prints will be shown in glass cages like fossils or other antiques, such as many Museums display, with the glass not even being in contact with the print but separated several inches from it. If three mounted prints crowd a cage, there is no law compelling their being forced into space normally intended for only two of such size. The fact that mounts do not match in color or fail to harmonize with the walls of the Museum can very easily be remedied, but not by the makeshift method of sacrificing the mount. Because one Museum uses cages does not imply that all are so fortunate (?).

QUIET PLEASE — CORNELIA CLARKE

When an artist (photographic or otherwise) mounts a print, that in itself shows that the matter has been very carefully studied, and the presentation is his own responsibility. If the purchaser of such a work of Art is not contented with it as mounted, he is at liberty to change it to suit his whims. On the other hand, if the print be not mounted, the buyer in all probability would put the print on some monstrous colored card, to the detriment not only of the print but of Photography. It is therefor incumbent on the artist to standardize his mount in the manner that time has established and which has been sanctioned by custom.

When "prints are shown under glass" it is reasonable to expect that each print will be under a separate glass, except possibly in the case of

very small prints when maybe two or more might be so placed. In hanging prints this way, small brads are used to hold down the glass, so the print is in close contact with it. Then placed about two inches below the mount is a small dull gold card, sized about 1″ x 1½″ on which the print number is hand lettered, corresponding with the catalog, in which full data appear. If the gallery walls be of a color or material that would unfavorably influence the prints, it is suggested that a strip of unbleached muslin a yard wide, be run around the gallery; but in any event it is imperative that this be stretched tightly and secured top and bottom with a plain wooden moulding, say ½″ wide, toned a neutral color to harmonize with the walls and cambric. How much more dignified and pleasing this arrangement looks than the jumbled and overcrowded effect noted at one of the recent Salons; one need only refer to the splendid hanging of the Salons at Buffalo in 1910, at Newark in 1911, at the Montross Galleries in 1912, at the Ehrich Galleries in 1913 and 1914 and the last two Los Angeles Salons, besides numerous others, to be convinced that the San Francisco "method" is thoroughly bad. It is sincerely hoped that other Salon Committees will not be mislead by the San Francisco propaganda into changing the accepted ways of mounting and presenting Pictorial Photographs.

Among Ourselves

Amateur photographers are members of a fraternity to which they belong, with or without their consciousness or will. In that attitude toward one another they are intense or lackadaisical in the degree in which they are interested in the thing itself. Let one enthusiast see another with a camera, and if he do not accost him and pursue an intimate conversation it will merely prove the exercise of restraint. Common interests create friendships. Hobbies make men akin.

If, in the advanced and highly proficient stages of the art, one fervid pictorialist expresses some thing that seems somewhat envenomed—bless your heart, 'tis only as brother quarrels with brother and sister with sister: A passing bitterness that comes not from the depths nor penetrates more deeply. Let an outsider speak contemptuously of photography and belittle its claim to a place among the arts and you shall find the fraternity in arms, shoulder to shoulder for their common cause.

It happens that where temperamental souls compete for honors, the losers forget that achievement is the goal and not commendation. Juries express opinions and those opinions bring or deny certain emoluments, but juries cannot create values, cannot take away from real worth the qualities that make it so, nor supply the lack, if lacks there be. There should be consolation in these words, and a lesson for those who can read as they run. —S. B.

THE MUSICIAN

CORNELIA CLARKE
Grinnell, Iowa

Naturalism

By F. C. Tilney, Surrey, England

There is always a deal of confusion between the terms Realism and Naturalism. They are used indiscriminately by many writers and lecturers; but they are by no means the same thing. Naturalism is a matter of intuitive feeling, and Realism is a matter of rational conviction.

A third term, Literalism, has nothing whatever to do with either of the others. It is simply the name of a method. It is not a point of view or a mental process as Realism and Naturalism are: Yet in photography we constantly find the word Realism used to denote Literalism. The literalists are those who produce results, at the highest pitch of technical excellence they can reach, and without the alteration or modification of one iota of the scene or object depicted. There is a legitimate use for such a kind of work, but not in artistic picture-making necessarily. That is where the literalists go wrong. They maintain that if they see something and like it, and want to make a picture of it, the best method they can adopt is to make a literal transcript of it. They have yet to learn that it is not the bald facts of the thing that please them but the report of it which their eyes send to their brain; and, even more, the editing and assimilating of that report which their minds make, and the final placing of it in this or that pigeon-hole of the brain alongside with other associations already there from the day of their birth. Any pictorial idea thus brain-handled will get favorable or unfavorable treatment accordingly as it possesses more or less of Naturalism.

When I say that literal representation is but a method, I am borne out by the literalists themselves, for they admit that it is the thing copied which they desire, not the faithfulness of the copying. (Of course, I am speaking of pictorialists, not those who are learning how to photograph.) The literalist, then, says, "Yes, I aim at literal representation because I want the real thing I have seen." It is this attitude which has led to the further confusion of Literalism with Realism, and so all three terms get hopelessly mixed-up and people talk at cross purposes and confuse their ideas.

In these days therefore, when photographers are daily dividing themselves into two main classes, namely, "literalists" and "pictorialists", it should be borne in mind that Realism, or the look in a picture that seems to tell us that we are actually there taking part, is an achievement by no means the result of literal representation, wholly and solely. The realistic effect is far more due to Naturalism. I will try to explain why.

First, what is Naturalism? One has to be careful in framing a definition; but there is safety in saying that it is a quality in works of art that challenges our intuitive knowledge. We all know what it is to feel an inner conviction that a picture is wrong somehow, we know not how; and, just as often, to acclaim a thing that is right, being equally unable

to say in what manner or respect it is right. Do depicted facts offend against our general experience? If so, the picture is hopeless from the point of view of conviction, and consequently, of Realism. Curiously enough, this intuitive knowledge, possessed in some degree by all, is a thing we acquire unconsciously and possess without giving ourselves credit for it, and without knowing that it controls our judgments. The comprehensive ideas—be they right or wrong—that exist in our minds concerning all things, are due to our experience. They are our concepts of life, of being, of force, of all phenomena. People who have observed, thought, and studied, who have exercised habitually their native skill and energy, have experienced more full than others, and therefore have fuller and more accurate concepts of things. Judgments and preferences are founded upon these concepts. Anything coming our way which seems to belie them is rejected as wrong and undesirable because it does not tally with our ideas of general principles in nature*. By this test of Naturalism we are able to hold (quite legitimately, as I think) our various opinions of the rightness or wrongness of things of which we may perhaps know nothing specifically. In all matters but those of taste it may be advisable at times to put authority above conviction; but a man is a poltroon who, in matters of taste, sacrifices his personal opinion under pressure of fashion. His proper course is to strengthen and refine his taste and always to back it. Healthy art is impossible otherwise.

Naturalism should be the first and last criterion in art and beauty, for it empowers us to detect the absurd and the impossible, and likewise to accept possibilities of which we may have been unaware. Though we had never been in the arctic circles we should rightly reject the idea of tropical vegetation growing there. On the other hand we should be content to accept the colossal flowers of Klingsor's garden in "Parsifal" because they do but suggest intensive culture within natural law. It is thus that we fearlessly discriminate between what is rational and what is irrational in **all** the arts and in folk-lore. Thus we discern what is strong and eternally true in myths and legends, however unrealistic they may be in material fact. Naturalism therefore, whilst it ignores the literal falsities of presentment as immaterial, discovers the greater truths of general principles. When we demand the materialistic truths of literalism above everything else, we scoff, inevitably, at the notion of classic gods and flying angels. But that is because we do but dally with art in odd leisured moments. The old Italians lived always in an atmosphere of art. They saw that Tintoretto's gods and angels, for example, were naturalistic, and that was enough. They accepted, as we do, the antique idea that gods and heroes were gifted with superhuman powers in air, in sea, and on land. To the enlightened among them angels were religious symbols: to the superstitious they were verities. It was only necessary that their wings should answer to the human concept of the wings of birds. Tintoretto's

* This matter is fully argued in my "Art of Life" Course. F. C. T.

Naturalism is unfailing. His saints swoop to earth to work their miracles in a manner completely convincing. In drawing, action, gesture, expression, in the flutter and modelling of drapery by the air, they violate no natural law. But this is not Realism as Bonnat's "Job" is Realism, through a literal rendering of a nude model. All imaginative work stands or falls by the test of Naturalism.

The reader will by now have come to the conclusion that Naturalism and Realism are not opposites but apposites. That is indeed the case. The photographer who aims at Realism must first make sure of Naturalism. He frequently thinks he does so by adopting Literalism, and in cases of lucky chance he **may** do so. But to observant and experienced minds, especially of those who combine the love of nature with the study of art, literal photography constantly offends by presenting faults of Naturalism. It must be remembered that the final judge of these matters is the eye, or rather the mind served by the eye. But unfortunately the average photographer, however fine a technician he may be, is in danger of losing the pristine purity of human judgment by his constant familiarity with photographic records more often bad than good. Dr. C. E. Kenneth Mees in his little book on "The Photography of Coloured Objects", says, "A thing to guard against always is the danger of basing one's consideration of monotone rendering upon photographs . . . . photographers are apt to take their conception as to the tone value of bright green grass, for instance, from photographs which invariably show it as dark, if not black . . . . so uniform is the belief among photographers that grass is black, that a rendering as light grey will almost always provoke the comment that the picture was over-corrected."

Photographic picture-making teems with errors and exaggerations in perspective, and faults in scale; but these cannot rightly be said to be sins against Naturalism. It is chiefly in the domain of tone-rendering that natural laws are violated. The difficulties of tone-rendering occur mostly in landscape work; for in the studio, conditions are more amenable to the resources of the technician; illumination is under control and the problems of luminosities and colour contrasts are less complicated than they are out of doors. In landscape the chief fault in Naturalism is in the relative value of the sky and the earth. But this is frequently less due to photography itself than to the ambitions of the picture-maker who thinks that in order to show a sky one must have clouds. This again is a convention attributable to popular notions of what a photograph should be like. The pride of getting clouds and detail in the shadows "all on one plate" has induced the belief that this is the grand achievement and end of landscape by photography. The ideal appears to be to register every possible fact that could be demonstrated, by scientific scrutiny, to exist in any scene. The first fascinating surprise of photography in its infancy was that it showed what the eye ordinarily failed to detect. The childish delight in this falsity to human standards is still rampant, and only those who have a

glimmering of what art is, know that in pictorial work this tradition is a stumbling-block.

In the earlier days before the invention of panchromatic plates and light filters, no plate exposed "for the shadows" (and of course they all were) could register the difference between the light coming from the blue part of the sky and that from the clouds, even the dark parts of the clouds. The whole heavenly expanse was beyond the limit of differentiation, and the plate gave it all as light. As far as the plate could manage things this was perfectly correct; and it was naturalistic also, for the sky is much the lightest part of most scenes—a general truth established by our concepts of skies. The so-called "bald-headed" sky is therefore far better Naturalism than the "printed-in" sky which gives no effect of light above the earth, but displays a grand "round-up" of clouds, modelled and shaded as though they were carved in stone and cast in bronze; their crowding, complexity, and fussiness overweighting the picture with tone, robbing it of repose, and spoiling its composition. But technically considered there must be a naturalistic crime in using a sky taken with a short exposure, in combination with a scene taken with a much longer exposure. Obviously such a scheme of sky tones must be incompatible with the scheme of those for the earth. The eye has no two tonal schemes in one view. What results is the thunderous, crack-o'-doom look with which we are all too well acquainted, but without the real thunder weather effect on the ground.

The scientist claims to have swept away all these evils by his panchromatic plates and light filters. So he has; but in many hands what he has sent proves to be a King Stork instead of a King Log. His steeped emulsions and tinted filters certainly cut out the blue-violet rays that so overwhelmed the ordinary plate; but they cut out also other rays to which our eyes are sensitive, and it is very easy to get what to the eye is a bright blue sky appearing as a black one in prints. This also is a fault of Naturalism, and pictorially less acceptable than the plain light sky such as overexposure gave on an ordinary plate; for that required but one modification to turn it from white paper into a perfectly naturalistic sky by suggestion, the modification of gradation.

Landscape photographers, naturally enough, are fond of making pictures of sunset and moonrise effects; but few seem to find either knowledge or moral courage enough to render such scenes without faults of Naturalism sometimes blatent. In fear of the shibboleths of the technicians they shrink before the problems of exposure, and so it has become a practice to take literal views of the earth on grey days and to combine them with literal sky negatives taken at different times and different places. The results are by no means unpleasing to people who base their notions of what a picture should be upon the conventional photographic judgments alluded to by Dr. Mees. I would not debar them from their pleasure for one instant. It does them good. But to those whose concepts of these effects are fuller such pictures actually displease because they are unnatural.

But let us consider these sunsets. Even the dullest grey day will give a picture with a scheme of light and shade different from that of an evening scene. In the first place there will be a diffused top-light making shadows in the interstices of thick verdure, under the eaves of buildings, under lintels of doorways and windows, under the brims of the hats of figures, and under the bellies of animals. A thousand other items will occur to the reader. All these details are impossible against a sky brightened at a low part by the sun or the rising moon. Objects seen against such a sky are practically deep-toned silhouettes, and it is the beginner who, with the intrepidity of innocence, under-exposes and gets them right.

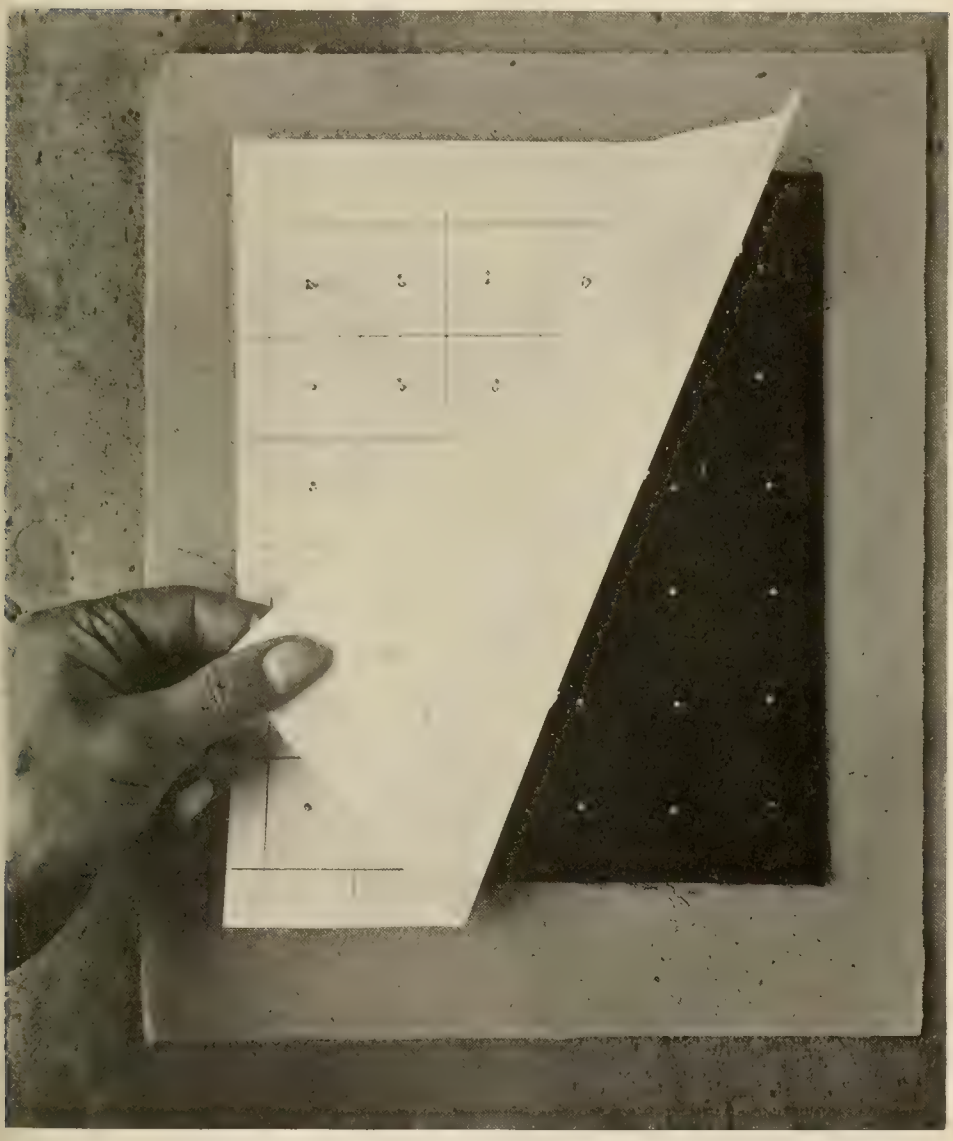
The objects will certainly be lit on the side turned from the sun if the sun should be veiled and the sky behind the photographer have still much illuminating power; but even then the details of shadow will not be as they are on a grey day: they will be front-lit rather than top-lit, and the effect will still be flat on the whole. Such an effect, however, is one seldom if ever attempted—a sunset darkened by clouds and objects faintly lit from the eastern sky.

The literalist may, or may not, scoff at the combination of differently exposed negatives in a quest for realism; but there is no doubt as to his simple faith in his "pan" plates and filters, and as a rule he resents the attempts of the "controllers" to rouse him out of his fool's paradise. But there must come a day when he will see that however valuable and indispensable these resources are in scientific and commercial pursuits—a thing never denied—they are of little service to art. Their measures are too drastic. They are double-edged tools. They give on one side and take on the other. If we accept their colour-contrasts we must often do without luminosity contrasts in our prints and dispense with aerial perspective altogether. The best technicians recognise the problems that still exist in tonal matters, in colour-luminosities and colour-contrasts, and admit that the greens and the reds are still a matter of "judgment" and "adjustment". It is a joy to the artist to find the inexorable "proven fact" scientist falling back on judgment and adjustment in order to "jine his flats".

If pictorial photography is to take a respectable place among the graphic arts it must be handed to its seat by Art. Science will never be able to do it. The reason for this is that Pictorialism, the most elusive aspect of art, belongs to psychology, not to physics. Its standards are uncodified, unwritten, and work by feeling, not by measurement. Let that feeling be the quest, and let it be prosecuted through the recognition of general truth—not particular truths—and through responsiveness to beauty. Beauty, we must remember, is relative, not absolute. Our minds decide what is beautiful to us; and those decisions are only worthy when we have acquired enough experience and general culture to form proper concepts of Beauty and Truth, both of which are rooted in Naturalism. And so to each in his own way must come as much or as little as may be proportioned to innate capability or result of study.

"Catalog Layout"

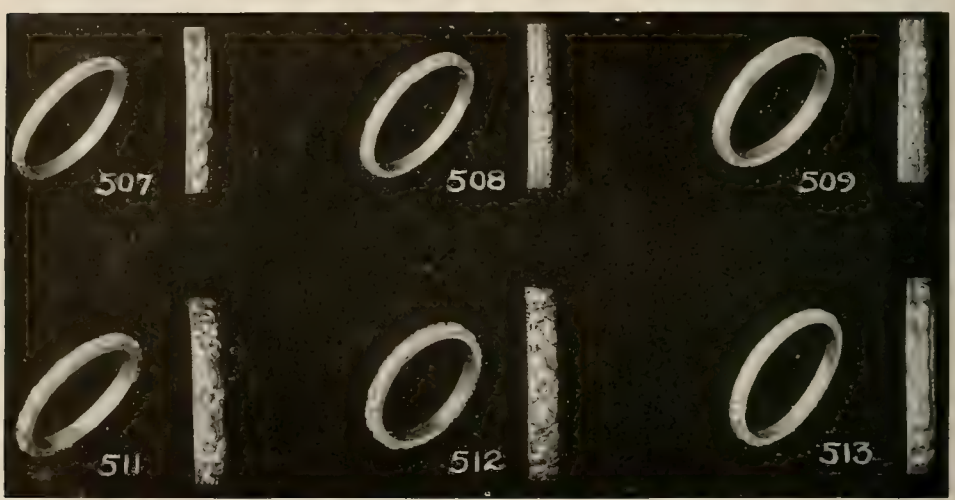
By L. C. Beringer, San Francisco, of Lothers & Young
Illustrated by the Author



THE FIRST STEP

In the practice of Commercial Photography the operator is called upon to exercise his ingenuity in solving new problems daily. The conditions under which he works are not standardized as in the case with the portrait photographer, excepting our home portrait friends who have their own cross to bear—but that's another story.

In the catalog field, we believe that perhaps the most difficult work we are called upon to do and that requiring the most exacting care, is the making of full page silver and jewelry layouts **direct** with the camera. In this connection it may be interesting to describe the method we used to get the result desired by one of our customers—a silver and jewelry wholesaler, who publishes annually a large catalog. This firm prefers to use unretouched photographs and it may readily be seen that the photographs must be right insofar as layout and photographic quality are concerned, for the prints cannot be worked over by the "Print Retoucher" as is generally the practice in silverware and jewelry reproduction.



This will give an adequate idea of how the final showing was presented to the customers. It will be noticed that the end view has been enlarged to show the design clearly.

Each page layout was to show numerous articles attractively arranged on a jet black background and all layouts uniform in depth. Edges of silverware must not reflect this dark background or they will appear dark, and in the final half-tone reproduction will be merged into the background and lost. With ordinary lighting this is unavoidable and the usual result is something like figure one which is not to be desired. In other words our customer wanted a clearly outlined set of objects standing out in bold relief, almost stereoscopic in quality, against the black background. This was accomplished by introducing a strong back-lighting behind our layouts. A typical result made under these conditions is shown in figure two. The background is of black velour, the silver arranged on open shelving, the shelves being covered with black felt. The silver was prepared with putty in the usual old fashioned way of dabbing on and the lens used was a Carl Zeiss Protar single combination of about twenty inches focus, stopped sufficiently of course to secure critical definition throughout. There

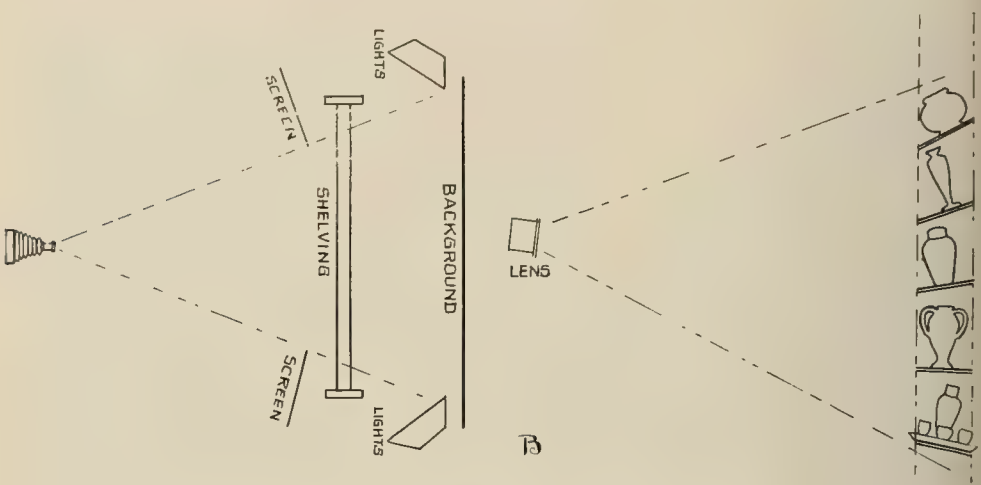
was a general diffused daylight (source behind camera) and each of the backlights consisted of 2000 watts mazda, so arranged as to fall on the layout as evenly as possible but being screened entirely from the lens to obviate any danger of fog. Eight by ten Ortho films tanked in Standard Eastman Pyro metol complete the story.

FIGURE ONE
Showing ordinary, straight-front lighting.

In making layouts of this nature one must be sure to tip each shelf so that the angle of perspective from the lens is identical. To explain more fully: This is done to keep the lower row of objects, the upper row, and the intermediate rows at the same tilt as the eye of the camera sees them—which actually means a decidedly different tilt as far as the relation of one shelf to the other is concerned . An exaggerated idea of this is shown in the sketch—marked B.

The longer the focal length of the lens the less of this tilt is necessary and it is best in this—as in most photography—to use as long a lens as practicable.

Appearing in this same catalog is a page layout of rings in actual size. Part of these are wedding rings and it was desired to show an enlarged section of each in full front projection as well as the image of the whole ring. This was for the purpose of exhibiting the details of the design clearly.



The left half of this diagram shows the light, screen, and background arrangement. The right half shows how the shelves were tipped, in order that a proper point of view be presented to the lens.

A brief description of the steps involved in making this photograph may prove useful. It was made with the vertical or overhead camera. First a piece of paper was marked out, the size of our page, and divided into equal squares to the number of rings to be shown. This paper was super-imposed on a piece of black velvet which had previously been mounted on a piece of stiff double-faced corrugated board. A lath nail was driven through the center of each square and the paper then removed. This was a simple way of arriving at position for each ring in the layout and the illustration captioned "The First Step" will clearly show this. With the aid of modelling wax each ring was adjusted at the proper angle on a nail. Then on the ground glass the images of the wedding rings were traced with a wax pencil. An exposure was made and the film kept for subsequent exposure on the **same** film, of the enlarged sections of the rings. Using the pencil guide on the ground glass as a clue to position, the wedding rings were arranged on a piece of black velvet large enough to cover the entire image and the camera adjusted to give the desired enlargement. The second exposure was then made on the same film. As the background, in both exposures, was black and did not register, and as the two images were carefully placed and did not overlap, there was no injury done by this double exposure. It was necessary in making these

exposures to place the holder in the camera true and to the same side of the carrier, to insure correct registration. Before printing, the negative was cleaned with the etching knife where bits of modelling clay or nails had shown and the enlarged wedding rings were cut down with the knife to show only the sections wanted.

FIGURE TWO

Illustrating the attractive appearance and higher value given to such merchandise by the back lighting dealt with in Mr. Beringer's article.

This is the arrangement of the rings for first exposure. Note the bits of modelling wax which were subsequently etched from the negative.

At the head of this article is shown a section of the final print—that part devoted to the wedding rings just described. While seemingly difficult and involved this layout was in reality easier to make than it would have been had separate prints of the enlarged sections of the rings been cut out and pasted on the original layout photograph, beside being less crude and making a better half-tone reproduction.

A New Bridge In An Old Town

By Ira Wright Martin, New York

I have been asked by the Editor to tell why, how, when, and where I took the "New Bridge in an Old Town" and, as it is a pleasant memory, I am more than glad to do so.

Last summer I was so fortunate as to take my first trip through New England. It was a business trip but I had time to look around a little and day dream about the historical doings of our forefathers, who made much history of various kinds, and, in various ways. Of course, the tales still live and the "very spots" from which they sprang and now hang are to be seen, but, in most cases, present-day progress has surrounded if not entirely obliterated them.

So I found the coast until I came to Portsmouth, New Hampshire; quiet, peaceful, quaint, and picturesque. After seeing many of these old houses, chatting with the present generation, seeing the old relics of their forefathers I then visited the "Oldest house in town" which is three hundred and twelve years old. It was there I stopped. Looking toward Badger's Island (upon which Captain John Paul Jones' "Ranger" was built), in this romantic old town, was a most modern type of a new bridge. The movable span did not swing or jackknife but elevated straight up, to permit the tall-masted sailing vessels (that still make that port) to pass. Standing out in contrast is this new bridge, not yet open to the public. Even the word "Public" on the sign at the entrance did not seem to apply to the old town—it all seemed private.

I took my graflex and prowled around, on old piers and rickety places, until I got the view point that satisfied. I then waited for some craft to break up the water space of the picture and, as the harbor is not exactly lively, I had quite a time to wait. The white motor boat filled the bill so I "stopped" it where I wanted it, developed in Metol, made a glossy Azo contact print without retouching of negative or print and sent it on. A Smith Visual Quality, soft focus lens, working at F 4.5 was used.

"A NEW BRIDGE IN AN OLD TOWN"

IRA WRIGHT MARTIN
New York City, N. Y.

Radio Talk to Photo Finishers

By David S. Merriam, Minneapolis

NOTE--Mr. Davis S. Merriam is the Treasurer of the Pako Corporation and his intimate knowledge of the subject is the product of years of actual experience and careful study. The very nature of his business makes him the more competent to deal with the pursuits of Photo Finishers. What appears here as text was broadcasted from Minneapolis sometime ago, but every word is as alive and potent now as when it hurtled over the air fresh from the mouth of the speaker.

"The Business of Photo Finishing"

Good evening, fellow listeners. I say fellow listeners because up to this time my entire experience has been on the receiving end. Even now my wife and my five-year-old daughter, Helen, are listening in at home to hear what daddy has to say. And since I am sitting here talking into an innocent looking instrument which can't talk back, for once in my life I can hear myself talking.

As one of the representatives at the Photo Finishers' Convention which opens tomorrow, my assignment this evening permits me to occupy a fifteen-minute period with any conversation about the business of photo finishing which I think may be interesting to you. At the risk of losing the attention of some of you who may know all about it already, it seems important that I should be sure that all of us understand what a photo finisher is.

For the purpose of defining what a photo finisher is, photography, that is, the work of photography, may be roughly divided into two steps: Operating and Finishing. The operator poses his subject and manipulates the camera, while the finisher takes the exposed plate or film, develops it, makes prints from it, and does all the work from the point where the operator leaves off. When you hire a man to take a picture of your home, or your factory or your family he may have an operator to take the picture and a finisher to do the rest of the work, or he may do it all himself. But because he controls both the operating and the finishing, he is called a photographer.

But there are a great many operators, and you are probably one of them, who have no facilities for photo finishing. Whenever you put a roll of film into your camera and start out to make six exposures you are a photographic operator. When the roll is fully exposed you take it to your corner druggist and he sends it on to the photo finisher for you.

If you bought your first camera fifteen or twenty years ago this explanation is superfluous. In that case you know the joys and the hazards of photo finishing. It may be that your experience has been confined to the making of negatives on glass plates, the use of sun print paper for your pictures, and the toning solution, fixing bath and tedious hand washings which were required by that kind of paper. Or possibly you seesawed a roll of film through a tray, and instead of setting your printing frame out in the sun for an hour or two, used the newer developing paper which requires a much shorter exposure and has to be put into a developing solution to bring out the image after the printing is done. It was a

lot of fun at first, but the process was so tedious and the results obtained by the majority were so uncertain that when some store near your home or office established a photo finishing service, you were glad to give over the drudgery and let someone else do this part of the work for you.

Now, although you may not realize it, this business has grown into a profession. Over one thousand photo finishing firms within an overnight radius of the Twin Cities have been invited to send representatives to the convention which opens tomorrow. Photo finishers the country over use more chemicals and more photographic paper, and individual camera owners expose annually a greater square footage of photographic films and plates than is used in the combined branches of portrait, commercial and industrial photography, exclusive of the motion picture industry. It is conservatively estimated that during the months of June, July and August, photo finishers in Minneapolis and St. Paul alone make an average of 75,000 photographic prints for each working day, or a total of six million for the three months' period. In accomplishing this work, these same finishers develop better than six hundred thousand rolls of film during the same time.

Unless you have had an opportunity of going through a modern finishing plant recently, I am sure that a short description of the manner in which this work is handled will be of interest to you. We do not develop each film separately. Instead, the rolls are suspended vertically on hangers holding ten or more rolls each, and are developed in four-foot tanks holding fifty or more rolls at one time. They are put through the fixing and washing baths on these same hangers, and are not touched individually until after they are dried.

Strange as it may seem, this treatment gives uniformly better negatives than the old hand method. The photographic emulsion with which a film is coated permits considerable latitude with respect to the time of exposure in your camera. If you stay within this latitude range and have your camera focused properly you will get good pictures. If you have not given enough time, over-development will only block up the negative without adding anything to detail. If the film has been over-exposed you cannot save it by developing it for a shorter time. Regardless, therefore of the errors which may have been made in operating your camera, normal development will give you the best possible negatives from your films. By "normal" development, I mean immersion for a given time in a developing solution of a certain strength.

When we take your finished negatives to the printing room, we do not place them in a printing frame with the paper and hold the frame to the light. Instead, we place the negative on a printing machine which has a contrivance for holding the film in place and a readily adjustable mask with which we can provide for the proper margin on prints of any size. For negatives of standard size, we have our paper carefully pre-cut to exact size, so that there is no need for hand trimming it after it is dry. These printing machines use electric light for the printing operation. They are so arranged that when the top of the machine is closed to hold

the paper firmly against the negative the printing light is automatically switched on.

It is customary to have on hand three different grades of paper for negatives of varying character. The person who operates one of these printing machines soon becomes so expert that by merely glancing through a negative both the grade of paper required and the time necessary for printing it registers almost automatically. After the prints have been developed and fixed for a sufficient time, they are taken to mechanically operated washing machines which keep them constantly separated from each other so that the chemicals may be dissolved from them. The prints are then dried mechanically in from four to ten minutes and are ready for sorting and checking.

Every dependable photo finisher scrutinizes each finished print and the negative from which it was made, to be sure that the best possible results have been secured. If a print does not come up to standard the negative is sent back to the printing room. But in a plant where each step of the process is performed by skilled workmen the percentage of waste is surprisingly small. This specialization is largely responsible for the very excellent results which you are able to obtain through your corner druggist nowadays. It is also responsible for the remarkably low price for which you get your finishing done. Taking the work in quantities, it is possible to utilize the chemicals for actual work instead of letting them deteriorate from oxidization.

But the developing of rolls and packs and the making of prints is not the limit of the service which the average photo finisher is prepared to render to you. Fully one-half of the volume of developing and printing is handled in this part of the country during the three summer months. If the photo finisher has not found other activities for his skilled workers during the slower seasons he would be unable to handle the summer rush as he does now.

Suppose you have a kodak print for which you cannot find the negative, or a photograph or tin type of one of your ancestors which is rapidly fading and which you wish to have reproduced before the image is entirely gone. The photo finisher is equipped to make copy negatives of such pictures and to reproduce them in exact size, or to make enlargements or reductions from them. The family camera is becoming more and more valuable to us. In this age of automobiles, moving pictures and radio, we have no time for the lengthy letters to far-away relatives which used to be common with our forefathers. The pictures of the family at home and abroad nowadays constitute a large percentage of the family history which will be handed down to posterity on paper.

Every once in a while one of us gets a snapshot which is particularly charming and wishes that his camera were larger, so that the picture would show to better advantage. The photo finisher will take the negative, put it in an enlarging camera and make an enlarged picture which is faithful in every detail to the original.

A number of firms combine the business of photo finishing with that of turning out photographic post cards in quantities. Any finisher can make photographic cards from his customers' own negatives whenever that is desired.

Your present-day finisher spends considerable money on advertising, too. Of course his field is somewhat restricted because the element of time required is always important in photo service. It is characteristic of all of us when we have pressed the button to want to see the picture as soon thereafter as possible. But you and your brother camera owners are gradually learning that the photographic process cannot be hurried too much, and that the work turned out by the finisher who refuses to have your work ready in less than twenty-four hours is generally better than that done by the man who makes a feature of quick service. It is not at all uncommon for particular camera owners to send their work half way across the continent to some photo finisher whom they have found reliable.

Illustration by courtesy of
THE SOUTHERN PACIFIC R. R. CO.

Rhyme of the Red Cap Porter

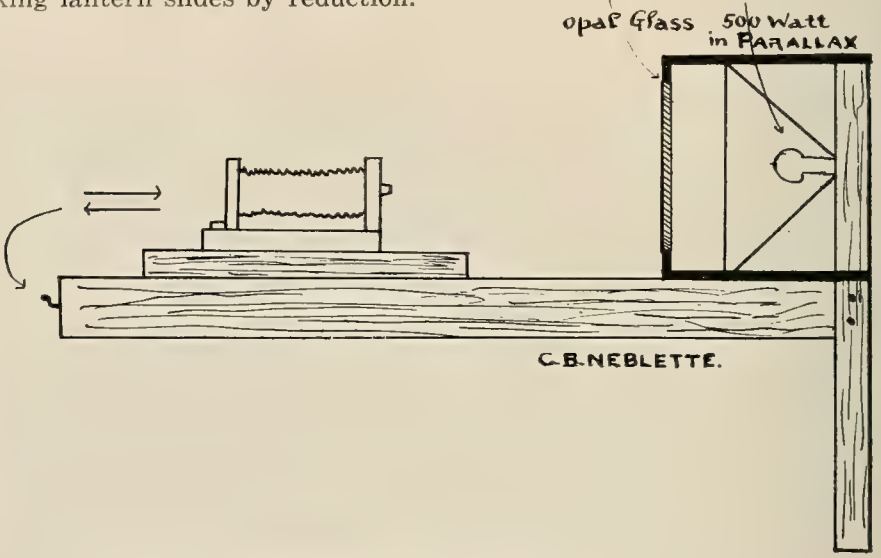
By J. J. Morris

I'se here to carry yo'h suitcase,
I'se here to tote yo'h grip,
I relieves yo of baggage worries
When yo takes a railroad trip.

A Simple Apparatus for the Rapid Production of Lantern Slides

By Prof. C. B. Neblette

The apparatus for making lantern slides by reduction which I am about to describe was originated by me while in charge of the department of photography at the Pennsylvania State College and as there may be others who have occasion to make large numbers of lantern slides it has occurred to me that perhaps the arrangement might be of value to others and hence shall endeavor to describe, as simply and clearly as possible, the essential features of the apparatus which was found to be so efficient for making lantern slides by reduction.



ILLUSTRATING PROFESSOR NEBLETTE'S SIMPLE ARRANGEMENT

In the ordinary way, when using the camera horizontally, with the negative illuminated either by artificial light or by daylight, considerable time is lost in placing the negative in place and securing it in position. It was decided that by far the best arrangement would be to use the camera vertically, the negative being placed on an illuminated sheet of opal glass in much the same way as on the bed of an ordinary printing machine. Accordingly a light-tight box, carrying a 500 watt mazda lamp in a parallax reflector, was built and attached to the base of the Folmer and Schwing Laboratory stand. On the top of the box, at a sufficient distance to secure even illumination over an 8x10 plate, a piece of opal glass was placed.

An ordinary back-focus view camera with an Eastman Lantern-Slide Back was next attached to the bed of the stand which is connected with a rack and opinion, by which the camera is easily and quickly lowered or raised. A few opaque masks of various sizes cut from thin sheet metal completed the outfit.

The operation of this equipment is very simple and there is less lost motion and lost time than in any other apparatus for the purpose with which I am acquainted. The negative is simply placed on the illuminated opal glass plate in just the same way as if a print were being made on an ordinary printing machine. A mask of the proper size is then laid over it, and the distance between the camera and the negative, required for the degree of reduction necessary, is rapidly adjusted by means of the rack and pinion. The proper size of image and sharp focus having been secured, the shutter is closed, the lens adjusted to the desired aperture, the plate holder inserted, and the exposure made. It is really much simpler than it reads and with a little practice becomes quite rapid.

One of the big advantages of this outfit is discovered when dealing with a batch of films of various sizes. With the usual arrangement, using the camera horizonally, it is quite a tedious matter to get these into the proper position. Whereas, with my arrangement I simply lay them down on the opal glass, place a sheet of plain glass over them, and then adjust my mask so as to eliminate the undesired portion.

Using an anastigmat lens at F/9 and Wellington Special lantern plates I have made many hundreds of slides with this apparatus with exposures ranging from two to ten seconds, according to the density of the negative and the degree of reduction. I may say that I never stop the lens down as I have never seen any advantage in so doing. The lens in question was a high grade 8/10 symmetrical anastigmat fitted with Waterhouse diaphragm. The Clerc fractional diaphragm was used in focussing, in order to make sure of obtaining exact focus without any unnecessary delay. Those who must use a lens fitted with an iris diaphragm and hence cannot use Clerc's fractional diaphragm may adopt with advantage the parallax method which will be found in any reference work of photography.

Our Cover Design

The Donner Monument was erected in memory of the little family group who found that beautiful lake, which was subsequently named after them. It was in the midst of an inclement winter and they died on the spot.

Mr. H. S. Lawton during his trip in the mountains caught a tempting light on the statue and our cover is the result.

Hic Jacet Veritas

A snap shooter is as good as a Salon Prize Winner if he happens to catch real pictures. The thing that counts, in the final analysis, is not how the picture happened but how good it is. —S. B.

Photograph by ALLEN YOUNG

Bedtime

When the stars shine overhead
How I love to go to bed
And my blanket with the bunnies
Nursie tucks around me tight
Then I never even peep
Shut my eyes as if asleep
While my nursie tiptoes softly
To turn off the bedroom light.

But quite soon I sit up straight
Some one's whistling at the gate
And I'm always first to hear him
As he shuts the outside door
Just a step and then a bound
Then my daddy's arms tight round
Hold me closer, darling daddy
Kiss me lots and whole lots more!

—Florence Presley.

Decorative Borders

By O. K. Wiandt, Danville, Illinois

With Illustrations by the Author

One day when in the mood for dabbling with old material I tried making decorative borders in the simplest way, and with the things readiest to hand. The results seemed so genuinely to please many who saw them that perhaps the readers of Camera Craft may be interested too.

Of course every one is familiar with the methods of double printing and the use of mats, so it were a waste of space to go into details on that subject. The little manuals given free by the manufacturers of every developing paper furnish the fullest instructions on cutting and using mats.

Figure three shows a mat made in tones. A sheet of linen correspondence paper free from watermark was used. Lettering and border were put on with black drawing or so-called Liquid India Ink, and the shaded portions were done with pencil.

The mat for Figure one was produced the same way, save that it was reversed on photo paper and this used for a mat.

When the lettering is completely dry, paste a piece of opaque paper where the picture is to appear. Orange paper or the black sheets in which sensitive papers are packed are best.

Now cut out from the same sort of opaque paper the mask, being careful of the register, and your outfit is complete.

It might be of interest to add that the picture shown in Figure two was taken with a Brownie Box Camera, snapshot, without filter, 4:30 P. M., in February.

O. K. WIANDT
Danville, Illinois

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

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The Amateur and the Professional

We have been asked by what magic process Camera Craft has succeeded in interesting the amateur with news and knowledge that is so patently devoted to the professional, and at the same time has kept the professional expectantly waiting to learn what the amateur is doing. Whatever the surprising element be in the achievement, there is no wonderwork in it,—no greater magic than a recognition of conditions and the psychology that rules the traits of men.

Laymen are generally interested in what is being done along the lines of their pastimes by others who make a vocation of the same. The the news of professional golf engrosses the veriest tyro of the links. And in photography, where the dilletanti have carried progress so far ahead of daily routine, the professional gives a whole-hearted interest to what the amateur has done, is doing, and proposes to do, which interest carries over to individuals, clubs, and salons. In fact the popular exhibitions are enriched by work of men who live by the pictures they make. Likewise the portrait galleries and the commercial establishments, more and more, seek to give their prints a pictorial value.

Those who give to photography time, pains, skill, and money, without hope or desire of compensation are apt to carry discovery into unthought of regions. They are not restrained by traditions, public demand, or the consideration of time and overhead.

Camera Craft recognizes all these factors and seeks to cover a broad field, broadly. The readers have helped, immeasurably, by suggestions, by encouragement, and by constructive criticism. We cannot hope to satisfy every reader with everything on our pages, but we can please each with some one thing in every issue. If we fall short of this, we fail in our aim and object.

But we cannot, ever, go far astray. Our friends are many and loyal and their opinions come to us freely. From the mass of such frank statements we are enabled to make deductions, and to form plans that govern the way we shall go. Your magazine thus becomes what yourself wants. Our task is to maintain quality and obtain material.

The Camera Craft Silver Cups

This illustrates the design of the cups presented to the Photographers' Association of the Pacific Northwest. One for the Portrait and the other for the Commercial Sections. The award is for one year's tenure and the person who obtains the honor for the third time secures permanent ownership. W. E. Dassonville of San Francisco, won the Portrait cup and Charles Bowen of Seattle, the Commercial cup at the Portland, Oregon, Convention this year.

MR. W. E. DASSONVILLE
San Francisco, California

Awarded the Silver
CAMERA CRAFT CUP
in the Portrait Class

THE WINNING PORTRAIT

This portrait by W. E. DASSONVILLE printed on his Charcoal Black was awarded the Silver Cup

W. H. MANNHAN, JR. of Hillsboro, New Hampshire
President of the Photographers' Association of America

Made at the Milwaukee Convention
with Halldorson Electric Studio Lamp

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C

THE NEW OFFICERS OF THE P. A. OF A.

Seated, reading from left to right: Alva C. Townsend, of Lincoln, Nebraska, Treasurer; W. H. Manahan, Jr., of Hillsboro, New Hampshire, President; J. H. Brakebill, of Knoxville, Tennessee, First Vice-President.

Standing, from left to right: James E. Reedy, of Minneapolis, Minnesota, Chairman National Photographic Exhibitors' Convention Bureau; John R. Snow, Mankato, Minnesota, Second Vice-President; S. R. Campbell, Jr., Washington, D. C., General Secretary; H. J. DeVine, Cleveland, Ohio, Chairman of the Commercial Section of the P. A. of A.

Credit where credit is due. We have to give Milwaukee a little more credit for attendance than the 1406 previously announced. This figure was pretty nearly right for Thursday night of Convention week but Friday found unexpected members wandering in, some even paying their delinquent dues for the sake of a flitting glance of the Exhibit Hall just before the cyclone hit it, (the twelve o'clock whistle) and the last number or two on the program. The final classification of attendance is as follows:

Studio Managers or Managers	821
Studio Employees	193
Manufacturers and Dealers	177
Guests	305
Total	1496

We are a little bit proud of that first figure, as it is the best representation of the Actives we have had since the dues were raised to ten dollars and speaks well for the support the members are giving the Officers as well as the interest taken in the Convention generally. (Last year, we shouted for 2000, next year we are going to get it.)

By states, we find there were very few not represented, there being 191 members present from beyond the 500 mile limit. Florida, Texas and California, which might be considered the most remote, had four, five and eight, respectively.

The prospect of an Annual, we know, is going to be good news and we are pleased to announce that the completed report of the Proceedings has been turned over to the publisher. The volume will be introduced by reproductions of ten photographs shown in the National Salon at Milwaukee.

During the course of the Convention, a prize of $25.00 was offered for the best name for the School of Photography conducted under auspices of the P. A. of A., at Winona Lake, Indiana. Heretofore, it has been popularly known as the "Winona School," leaving off that part of the correct title which affiliates it with its founder, the P. A. of A. What is now wanted is a name which will incorporate the name (or at least initials) of the National Association and if possible, avoid the appellation of a "School." In some localities this seems to be a draw-back, so it is hoped a new title will be invented that will accomplish these ends and thereby win the twenty-five simoleons. Members are given till December 31st to file their suggestions with the General Secretary after which date, they will be submitted to the Officers of the Association at the regular January Board Meeting. Five minutes thought may win $25.00 and it only costs a two-cent stamp to compete. Let's have them, before you get too busy with Christmas work.

We have had several requests from members for the new Traveling Loan Exhibits, i. e., those made up from pictures exhibited at the Milwaukee Convention. We should like very much to have these ready for the immediate use of individuals but they were promised to the Portland Convention for the last week in August, the New England Convention for September 16th and finally to the Oklahoma City or Southwestern Convention for October 13th, so it will be at least the first of November before they get back to headquarters and are ready for the road. Sorry, friends, but we want our Amalgamated Convention attendance to see what a fine display of photography you furnished us at Milwaukee. Please be patient just one more month.

Concurrent with the last day of Convention week, a host of photographers and others throughout the country found themselves bereft of one of their dearest friends—Julius C. Strauss, of St. Louis.

That his memory may not perish, however, some of his ardent admirers have started to raise a fund with which to purchase a suitable testimonial of their affection, it being the idea of the originators that a memorial be installed at the Winona Lake School of Photography, P. A. of A. and dedicated to his memory; at the same time, serving a useful purpose to those seeking further knowledge in the profession.

While it was at first thought to make this a personal testimonial, the fear of overlooking a mourning friend has prompted the insertion of this notice that any who so choose, may contribute to the Fund. Any amount will be welcome. Make checks payable to the P. A. of A., annotated "Julius C. Strauss Memorial Fund" and mail to the General Secretary.

California Association News

Organized for the purpose of co-operation toward the betterment of our profession.

IDA M. REED, Secretary, 703 Market Street, San Francisco, California

Mr. Van Sicklen's Talk

Continued from the last issue, where it was discontinued for want of space. As the information is of the utmost value we strongly advise our readers to read back and, so, get the context.

"If you use Thermetol (Adurol), or Chloro-Hydroquinone, which is the same product, you will get much greater speed, contrast and less tendency to fog than with Hydroquinone. Thermetol combined with Metol is the nearest to an ideal developer for prints. It has the maximum of helping quality, gives great contrast and brings out detail in the highlights as well as shadows. Also great speed and gives a blue black tone.

Too old a developer for tank development of films will produce fog in the long run. This is due to the chemical formation of new products from the dissolved gelatine that decompose the developer. Bromide is continually accumulating from the silver Bromide of the emulsion: All of which slows the action of the developer and diminishes its usefulness.

Whenever you affect the rate at which development takes place, you affect the size of the little silver particles, and the size of these particles determines the shade that the deposit is going to have.

As to the effect of short or long duration of development, the grain produced by slow development tends toward fine particles,—forcing the development tends toward fine particles,—when these particles come out they are found to be exceedingly minute. Metol being a fast developer produces coarse grey grains, a coarse grain with a reflective tint of grey. Generally speaking fast development gives coarser texture than slow development.

Distilled water causes the developer to keep better even if it is exposed for a long time to a bright light. (Sample shown of solution which had been in a clear glass bottle and exposed to light for a great length of time but was still perfectly clear.) The use of distilled water will pay in many cases, because the developer will then last for as long as six weeks. Tap water contains bacteria, and fungi which on standing grow into the gelatine: this condition being an active cause of deterioration of developer.

A strong solution of permanganate followed by a bath of bisulphite or sulphurous acid will remove stains from the skin, even pyro stains, if freshly formed. Silver stains can be removed by permanganate much in the same way, in which case you should use hydrochloric acid as an after wash—very, very dilute, of course. Cyanide will also remove silver stains but is poisonous.

Chrome alum has come into use principally because it hardens the film more quickly. It is used especially where speed is essential. It is more effective per pound than common alum.

The hypo bath will precipitate sulphur if there is too much acid in it; the sulphur precipitate is white to yellowish white.

The best test for the quality of the hypo bath is the practical one on a film or plate. If the hypo bath contains too much hypo it is slower than when it contains a normal quantity. A forty per cent hypo bath is slower than a thirty per cent, for the reason that the weaker solution penetrates the emulsion more readily. A twenty-five to thirty per cent solution is right.

Thank you." (Applause.)

The Chairman: Before Mr. Van Sicklen goes I want to thank him on behalf of the organization for his most interesting and instructive talk, and I sincerely hope it will do us all good. (Applause.)

At the Milwaukee and Portland Conventions

California was again put on the map by its President Laurence B. Morton who, by his own efforts and in committee work, put over some of the most important things at the conventions. In brief talks and unpretentious activities he put projects into motion and covered a multitude of subjects. All of which was done without cost to the association; Mr. Morton cheerfully giving his time and shouldering the expense.

A Present Duty

It now becomes the duty of the photographers in each section of California to organize local clubs or branches in order that they may enjoy the immediate benefits of local interchange of ideas and voice their wishes to the larger body in common.

At a smoker given to Mr. Clarence Stearns in the Beal Studio, Los Angeles, such a Club was organized and by this time permanent officers have probably been elected. Which district comes next?

P. N. W. Association News

C. F. RICHARDSON, Secretary, Milwaukie, Oregon

The Portland Convention

The annual convention of the Photographers' Association of the Pacific Northwest, this year, in conjunction with the Photographers' Association of California, opened on the morning of Monday, August 25th, and to the credit of all concerned found every exhibit virtually complete and in place. Something had been provided for every hour, things for the betterment of photography and the welfare of photographers, and much that had not been planned came through the spirit that moved all present. The mass of news to be reported appalls the writer. How can one tell it all and in orderly fashion in a way that shall do justice to what transpired and to the whole-hearted northern friends who gave so freely, did so much, and joined so completely in the spirit of fellowship that themselves had caused to prevail?

Leaving the program for another time, we would summarize the principal events as they come to mind: The election of officers for the coming year, the presentation of honors and of gifts, the awarding of the two massive Camera Craft Silver Cups, and outstandingly, the amalgamation of the two bodies into a greater, stronger aggregation to be known as "The Pacific International Photographers' Association". This title is not only correct and a proper recognition of the Canadian members, but is more expressive of the scope of the organization, which covers the entire coast, western Canada, Alaska, Hawaiian Islands, and the states contiguous to the Pacific states of Washington, Oregon, and California. We will be permitted the pardonable pride of stating here and now that Camera Craft was made the official organ of the new association. The motion was made, seconded, and passed by acclamation, unanimously.

The nomination of officers was made by a committee appointed for the purpose. That their selection was wise and popular was evidenced by the fact that every one so picked was unanimously elected. D. Perry Evans of Portland, Oregon, is now President. He brings to the exercise of his duties an experience gained from previous tenure. His loyalty to the causes espoused and to be achieved is well known. Mr. E. J. McCullagh, of Berkeley, California is First Vice-President. A live wire who may be depended upon to fill every requirement and to keep the record of central California at its highest. Mr. M. F. Jukes, of Bellingham, Washington, second Vice-President, whose personality is a successful bid for the good-will and reciprocity of all whom he meets. Mr. V. V. Vinson, of Vancouver, B. C. third Vice-President, and the fightingest, persistentest, most tireless worker for the association that walks. Miss Kathryn Gunnel, of Salem, Oregon, Treasurer, who will guard the funds as only a woman can. Miss Ida M. Reed, of San Francisco, California, Secretary. Miss Reed's record as Secretary of the California Association is too well known to require telling, and what she has done and what she has learned will be an asset to the newer body.

The Camera Craft Silver Cup for the best print in all classes except Commercial, was awarded to W. E. Dassonville of San Francisco by a jury composed of three judges from the northwest and three from California. The picture was a portrait of a young woman made on Charcoal Black, a paper of his own manufacture. The Silver Cup for the best Commercial print was given to Mr. Charles Bowen, of Seattle, Washington for a most vigorous and original conception. Mr. Bowen is known throughout the pictorial world as an artist who carries the highest honors at the various salons with a print of factory and smoke and grime. He has done much else and will do more equally good or better, but upon this picture rests the importance of his introduction to photographic artists.

The exhibits were varied and of unusual average merit. In several instances the jury had a long and arduous task to decide between contending prints that were of almost equal excellence. The awards were as follows:

Northwestern Association.

Men's Portraits—O. L. Markham, of Portland, first; King Studio, of Vancouver, B. C., second; McBride Studios, Seattle, third; honorable mention, C. F. Paschal, The Dalles, M. P. Kirkpatrick of Bushnell Studios, Seattle, H. G. Nelson of Elma, Wash.

Women's Portraits—Wayne Albee, of Seattle, first; H. V. Knight, Victoria, B. C., second; Kirkpatrick, of Bushnell, Seattle, third; honorable mention, Leonid Fink, M. A. Grady, of Seattle, and Gunnell-Robb Studio, of Salem.

Children's Portraits—Denison Studio, of Everett, Wash., first; O. L. Markham, of Portland, second; Aune Studio, third; honorable mention, C. F. Richardson, of Milwaukie, M. A. Grady, of Seattle, Johnson & Son, of Boise.

Groups—C. F. Richardson, first; Charles West, of Vancouver, B. C., second; Bushnell Studios, of Portland, third.

Home Portraits—Young & Cogswell, Seattle, first; H. V. Knight, of Victoria, second; Gunnell-Robb, of Salem, third.

Pictorial—Charles Bowen, Seattle, first; John Vanderpant, New Westminster, Canada, second; Berger Studio, Portland, third; honorable mention, H. V. Knight, of Victoria, Leonid Fink, of Seattle.

Illustrative—John Vanderpant, first; C. F. Richardson, second.

Advertising — Charles Bowen, first; C. F. Richardson, second, and Kenneth Brown, of Portland, third.

Commercial — Angelus Studios, first; Dupue-Morgan Co., Seattle, second; A. J. Baker, of Portland, third; A. L. Rainsford, of Portland, honorable mention.

California Association.

Men's Portraits—Paul De Gaston, San Francisco, first; B. A. Reade, of San Francisco, second; W. E. Dassonville, of San Francisco, third; C. W. Tucker, of Covina, Cal., honorable mention.

Women's Portraits—W. E. Dassonville, first; Tracy Webb, of Oakland, second; B. A. Reade, third; Maryland Studios, Pasadena, honorable mention.

Children's Portraits—Misses Spencer & Stolte, of Alameda, first; B. A. Reade, second; De Gaston, third; C. W. Tucker and Spencer & Stolte, honorable mention.

Group—C. W. Tucker, first; Spencer & Stolte, of Alameda, second; B. A. Reade, third; Tracy Webb, honorable mention.

The Exhibitors seemed to have extended themselves to make the show an outstandingly fine one and their reward was, as they expressed it, to get the biggest selling convention in the history of such affairs. Every booth was attractive in its own way, the merchandise displayed seemed in some subtle way to have been commercially subordinated and decoratively brought forward. That a convention on the Pacific shores should be so markedly a dealers Mecca was a surprise only to those who are not familiar with the peculiar character of westerners.

The details of the program and the numberless forms of entertainment with intimate narrations of what happened and who caused them to happen shall be reserved for the next issue of Camera Craft. One particular item comes repeatedly and persistently to our mind while writing this, and that is the credit due to Mr. Harry H. Main, Executive Secretary of the San Francisco Convention and Tourist League for his activities and entertainment. The unfailing geniality of this gentleman and his versatility, as well as the logic he brought to bear, did much to create a feeling that brought the 1925 Convention to San Francisco. The visitors will long remember the unstinted hospitality of their hosts and there is a spirit abroad that whispers that San Francisco will not permit her reputation to languish when the time comes to receive a larger delegation than ever, next year.

Pacific International Photographic Association

IDA M. REED, *Secretary*

703 MARKET ST., SAN FRANCISCO. CALIF.

OFFICERS OF THE PACIFIC INTERNATIONAL PHOTOGRAPHERS' ASSOCIATION

Front row, from left to right: Miss Kathryn Gunnell of Salem, Oregon, Treasurer; Mr. D. Perry Evans of Portland, Oregon, President; Miss Ida M. Reed of San Francisco, California, Secretary.

Standing, Mr. V. V. Vinson of Vancouver, B. C.. Third Vice-President; Mr. M. F. Jukes of Bellingham, Washington, Second Vice-President, and Mr. E. J. McCullagh of Berkeley, California, First Vice-President.

YOU HAVE ELECTED YOUR OFFICERS;
NOW GET BACK OF THEM!

For the Professional

In the Interest of Commercial and Portrait Photographers

PHOTOGRAPHING CAR PARTS AT MINIMUM COST

How General Motors Eliminates the Task of Opaquing Backgrounds

By James M. Ketch
Contributing Editor, Detroit.

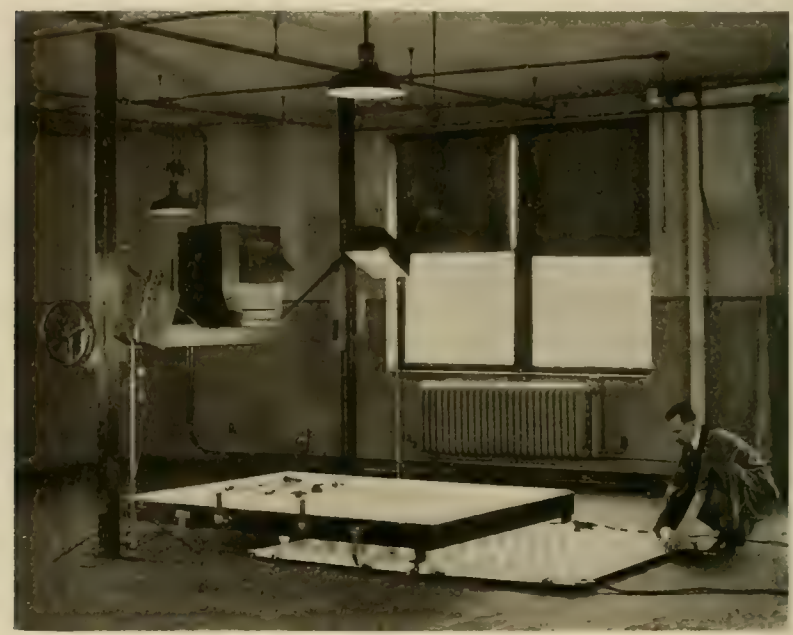


FIG. 1—THE BACKGROUND BOX DESCRIBED IN THIS ARTICLE AND USED IN THE PHOTOGRAPHIC LABORATORY OF GENERAL MOTORS CORPORATION

In preparing catalogs of automobile parts where linen-back photographic prints are used as full pages illustrating small objects such as gears and auto parts, one of the burdensome and costly processes found necessary is that of touching out the background. This is commonly done on the negative by the photographer, and the process is at best a delicate and tiresome one even on an object of very simple outline.

It is very common practice for the retoucher to cut away corners and minute details of the object and by so doing desirable detail is often lost. As a result of this blocking out, the sharpness of the edges of the image sometimes gives the picture an unnatural harshness, which heretofore has been remedied only by further retouching by an artist. Despite the use of the whitest of backgrounds, some of the weave of the cloth used for background usually remains visible and the print has a dark tone. The negative must be blocked out before it can be used effectively.

The Remedy

An idea which was recently put into practice by Mr. Philip Filmer, Photographic Department, General Motors Corporation, Detroit, is illustrated in Fig. 1. The device, which Mr. Filmer has dubbed a "background box," consists of a shallow box 7 ft. by 5 ft. 4 in., 10 inches deep, covered on top with one layer of good grade tracing cloth (tracing paper or

other diffusing material would do as well) and a heavy plate glass, which is frosted on both sides. The parts to be photographed are arranged on this glass surface as shown. A flat board equipped with

When taking a picture of parts under normal conditions with this equipment, the exposure given the background is roughly 1.75 times the exposure given the parts by the outside lighting. In some special

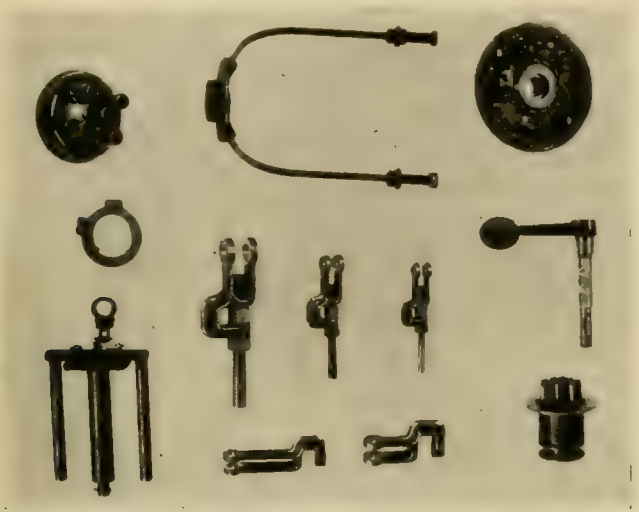


FIG. 2—THE BACKGROUND OF PRINTS SUCH AS THESE ALWAYS APPEARS GRAY UNLESS THE PHOTOGRAPHER BLOCKS IT OUT ON THE NEGATIVE

casters slides underneath the box. The board is the same size as the top of the box and is equipped with 10 rows of sign sockets, 7 sockets to the row. The sockets are 8½ in. centers, and are fitted with 25-watt P-19 all-frosted Mazda lamps. The board is painted flat white. The circuits are arranged so that sections of the board can be illuminated as desired.

By placing the camera on a vertical rack to adjust or focus by a vertical rack and pinion, and by equipping the camera with a reversing prism, it is possible to photograph the small parts on the flat horizontal surface of the background box. The top of this box and the objects are lighted and exposed in the usual manner. This lighting is obtained from stands carrying angle reflectors and photographic lamps as in many photographic studios.

Now in order to make the background come up pure white, the lamps behind the transmitting diffusing background are turned on for a long time to over-expose the white background.

cases however, it is said that the exposure of the background may be as high as 10 times the outside exposure. These are all taken at the normal stop F. 32.

The reversing prism found necessary because of the position of the parts, reverses the position of the objects. To remedy this, it is necessary when photographing parts with numbers on them, to reverse the plate or film in the plate holder. This puts the glass or film in front of the sensitized surface which inherently tends to reduce halation, and also makes it possible to print from the negative in the normal way with the sensitized surfaces of the film or plate and the paper together.

I see, in commercial photography where much background opaquing is required, a big field for the application of this principle. For smaller photographic laboratories, sets could be built proportionately. With proper precautions taken to secure the same luminosity and evenness of illumination of the background, by the use of

similar diffusing materials and proper lamps, equally satisfactory results should be obtained.

Exposure In Copying

The greater exposure required when any lens is used at a camera extension substantially greater than that for focusing distant objects is a factor in commercial copying. If the scale reduction or enlargement is known it is a simple matter to use one or other of the two tables in the "Almanac," since these are independent of the focal length of the lens. They show the exposure required on any ordinary scale of reproduction compared with that on any other scale, on the assumption, of course, that the same actual stop is used in the lens. In much copying, however, there is no occasion to work out the scale of reproduction. Under these conditions the means for comparing exposures is a scale on the copying camera made for the particular lens in regular use. The camera is first set in focus for distant objects and a line drawn across the moving and fixed parts of the baseboard, so as to show their position at this adjustment of focus. If now on either the fixed or moving portions of the baseboard distances be set off at, say, one-inch intervals, the exposures at the various extensions will be proportional to $(f+1)_2$, $(f+2)_2$, and so on, f being the focal length of the lens in inches. Thus, the figure at the 3 mark, in the case of a 6-inch lens, will be $9\times9=81$. By dividing each of these numbers by $4f_2$, e.g., by 144 in the case of a 6-inch lens, a series of numbers is obtained showing the exposures required as compared with 1 second when copying same size. Thus in the use of such a scale as this the figure at which the camera extension stands shows, by reference to the table, the exposure relatively to that when copying same size. Indeed, if originals are all of pretty much the same character and if the exposure for a same size reproduction can be standardised, the actual exposures at other camera extensions can be marked on the scale instead of the 1, 2, 3, etc., representing the scale in its simplest form.

Commercial Photographers' Dinner

The Commercial Photographers' Association of California through their delegates gave a dinner to the Commercial Photographers of the Pacific Northwest, which was attended by fourteen from Portland, Oregon, four from Salem, three from Seattle, one from Spokane, one from Aberdeen, one from Everett, two from Corvallis, four from San Francisco, California, two from Oakland, one from Berkeley, and one from Martinez. After a fit repast Mr. Laurence B. Morton opened an informal session toward a larger organization throughout the Northwest territory. Mr. Morton in his usually trenchant manner said a great deal in a few words and called on Mr. Sigismund Blumann to tell what his experience as an Efficiency Engineer had been with Trade Associations and their benefits. Miss Olga Dahl of Waters and Company of San Francisco, who has been an enthusiastic association member and officer, told how her large business had grown to its present dimensions through the help and benefit of the organization.

Mr. Ralph Young, of Lothers and Young, San Francisco spoke of the early experiences in Association work and the present status of business due to improved conditions.

Mr. Genzler of Portland, Oregon, propounded several very important legal questions, and in a masterly address promised the hearty co-operation of his city in anything tending toward the general good of the craft.

Mr. Webster of Seattle, bespoke the help of that city toward the same end.

A rising vote then showed that fourteen Portland members were ready to subscribe.

Considerable amusement was excited by Mr. Huntington, who represents a tight, coherent, highly efficient group of transbay Commercial men, when he told of the first Club meeting where enemies met with icy reserve and left good friends, and of how they handle fly-by-nights and cutraters.

A standing vote of thanks was given to the California Delegates.

Mr. Frank Scott Clarke's Talk

Owing to Mr. Clarke's serious illness, we postpone publishing his talk to our next issue, when we hope to have the illustrations therefor.

The Amateur and His Troubles

Conducted by Sigismund Blumann

Choice of a Lens

The simplest and we may say lowest form of lens is the spectacle or single meniscus, which is a single glass with its convex side pointed to the front. The largest opening at which such a glass will give acceptable definition is only a small percentage of the total area. It may be made to yield good pictorial effects and has been purposely chosen by master pictorialists for particular effects that could be gotten no other way. It is a fixed focus lens and is the kind found in most box cameras. Patently it is also cheap.

The single cell compound lens is made up of several glasses ground accurately to fit together so absolutely that when cemented one glass is formed, to all intents and purposes. By using glasses of different composition a certain amount of "correction" is obtained that enables one to use a larger area and still get definition.

The rapid rectilinear is a two-cell combination. Depending on the cost, each cell is made of a combination of two or three glasses each, cemented together and mounted accurately with a space between the front and the back combination. Such a lens is faster than either the preceding as it may be worked at a larger aperture. In fact some R. R. lenses are very fast indeed. These are splendid for landscape because they do not show an even definition for near, middle, and distant ground, thus producing the effects of perspective and distance more subtly.

The high grade Anastignats are high in cost but they give extreme speed. One may open the diaphragm to almost the full diameter of the glass and still get definition. The sharpest lines show as sharp lines, and every part of the plate is equally illuminated and in focus. This is not an unmixed blessing, for, the pictorial qualities which a R. R. lens can give is unobtainable with an Anastigmat under ordinary circumstances. Tricks are therefore resorted to, to get diffusion. Some breathe on the lens, which in time will spoil its surface; some unscrew the front cell and so cause a disarrangement of the combinations; others put a supplementary screen over the front, which acts as a diffuser; and still others rack a very little out of focus. All of these effects can be better contrived with what is known as a Diffused Focus Lens.

Of late years a great number of these have been put on the market. All have peculiar merits and individual characteristics. Some prefer the Verito, some consider the Graf preeminent, and a large contingent will use nothing but an Ilex. There are a round dozen from which to choose. They are mostly very large, very fast at larger openings (naturally) and when stopped down several become almost true anastigmats. What they gain in definition they lose in speed. For it is to be remembered that all lenses of equally clear glass have the same speed at the same opening. Speed is a matter of amount of light and just as much light travels through a single meniscus at F. 32 as through the most expensive Anastigmat at the same opening. The difference being that you cannot use the former at, say, F. 4.5 and you can the latter.

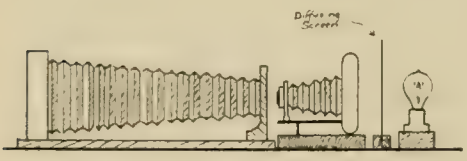
Now, we realize that terms have been used which will confuse the new amateur, but we are covering the ground merely to help in the first choice. As we progress and assume that the novice is becoming familiar with his equipment, and proficient in its use, we shall enter into more abstruse particulars. Should the reader be impatient to learn more for himself we would once more recommend the lens catalogs and the manuals issued by the various manufacturers. They are not only equal to text books but help to give a knowledge of prices.

Hints of Value

There are many cameraists like myself who have to depend upon drug stores for their photographic finishing. Developing and contact printing results are frequently unsatisfactory, but enlarging seems impossible. A negative technically perfect seldom yields even a passable enlargement, but if the negative is the least bit heavy or thin the result is a print covered with developer streaks from interrupted action, or one that comes within a few shades of being blank white paper.

My "standard" size print is five by seven, and as most of my negatives are smaller, enlarging is an important item. On account of the quality of "drugstore" enlarging, I was tempted to try to do my own work. Being a boarder and subject to occasional moves, I did not want to be encumbered with an enlarging lantern, so tried combining my 5x7 camera with a smaller one.

The lens and shutter are removed from the 5x7, and it and the smaller camera are put "face-to-face" as shown below. A focussing cloth thrown over the lens and the lens board of the camera prevents light from entering there. The negative, properly masked (and, if film, supported



between two pieces of glass) is fastened to the open back of the smaller camera with rubber bands. Behind this, a light, diffused with ground glass or tissue paper, is placed, and the focussing done on the ground glass of the 5x7. Unless the smaller camera has a longer bellows than the average pocket camera, it will be necessary to use a supplementary "portrait" lens to shorten the focal length of the regular lens. The bromide paper is loaded in a cut film holder just as film would be. However, a few trial exposures would determine the correct figure. Also, a person must wait for a few seconds with his head under the focusing cloth to become accustomed to the subdued light.

Here is another idea that may be of value. In photographing interiors by natural light, a convenient way to estimate the exposure is to stop down the lens until the detail in the darkest part of what is to be photographed is just visible. At this stop, the exposure, using Portrait Film, will be about 150 seconds. Of course, this method is not absolutely accurate, as there are a number of factors to be considered. The quality of the ground glass will affect the brilliancy of the image upon it, the quality or color of the light, and the keenness of the photographer's vision would all affect, and possibly change the time of 150 seconds. If plate holders equipped with film kits are used, it may be necessary to trim the edge of the bromide paper, as the paper is sometimes enough too wide to buckle in the holder.

The negative must be properly masked, as any extra light will be reflected onto the paper by the bellows and cause fog. I use a sixty watt lamp, but a larger one will shorten the exposure, which is rather long, and depends upon how much light is absorbed by the diffusing material, and how far the light is from the negative. Unless the negative is quite small, it will be advisable to move the light around a bit to cover the negative evenly.

In the absence of a tilting head for the tripod, the regular head can be tilted more than usual, by swinging one leg between the other two.

Most of the smaller folding pocket cameras are not equipped with rising lens board, and even the most amateurish photographer has need of one quite frequently. This can, to a certain extent, be taken care of by not fully dropping the lens bed, and so keeping the center of the lens a trifle higher than the center of the image. The lens will have to be racked out a little farther than the distance marked on the scale, as the tilting throws it some farther back. Though the lens axis is no longer at right angles to the plane of the film, the great depth of focus of the short focus lenses at f.11 or 16 overcomes any haziness of the image.

J. W. Grosdidier,
San Diego, Calif.

Notes and Comment

Class Instruction in Photography

Class courses in Photography which include instruction in both lecture and laboratory work are to be given by the Extension Division, University of California, under the directorship of Ralph Stuart Browne of Berkeley. The lecture course consists of ten one and one-half hour lectures to be given Tuesdays at 7:00 p. m. beginning September 2 in Room 263 Pacific Building, Fourth and Market Streets, San Francisco. The subjects which Mr. Browne is to cover in his lectures include types of cameras and adjustments; photographic optics; exposure; pictorial composition, and special instruction in the photographing of landscapes, motion studies, flowers, and human-interest studies. As a part of this course three field trips on Sundays will be arranged to points of special photographic interest.

The laboratory course covers instruction for a period of ten two-hour meetings on Mondays at 7:00 p. m. beginning September 8. Laboratory work is also given in Room 263 Pacific Building, which has been especially fitted up as a dark room and equipped with sufficient apparatus for the instruction of a class of twenty-five. Both lecture and laboratory courses should be taken at the same time for complete instruction in this subject.

Registrations are being received for these Extension classes at 140 Kearny Street, the San Francisco Office of the Extension Division.

Two New Booklets

The days for flashlights are coming, coming, coming: The nights are always here for taking pictures by flashlight. That is a special branch of Photography to which books have been devoted, yet few amateurs have properly interested themselves in its opportunities.

Two pamphlets have come to hand from James H. Smith and Sons Company: One dealing with their products, Victor Flash Powder, and the appurtenances, the other devoted to electric lighting systems. These neatly bound in flexible board booklets should be in the possession of every photographer and a postal to the firm named will probably bring them promptly.

Thew Incorporated

Thew, Incorporated, has been organized for lectures, press illustrative service, and general photographic work, both pictorial and commercial. Mr. H. S. Lawton, well known to the profession, is Director of Photography. It is proposed to make a scientific and photographic study of the glaciers on Shasta and other Government mountain reserves. Miss Susan P. Thew, the lecturer, is President, and Winfield Scott is also to officiate in the capacity of lecturer. The old friends of Mr. Lawton will be glad to know that this new connection has not severed his relations, as official photographer, with the Western Pacific, Sacramento Northern, North Western and Mount Tamalpais and Muir Railway Companies.

Mr. George Barrows Calls

George Barrows, representing Agfa Products, Incorporated, passed through San Francisco, returning from the Portland Convention. His genial personality at both Milwaukee and Portland is gratefully remembered. The new Agfa Color Plates attracted considerable favorable notice and it was interesting to note that this firm is steadily gaining place in the market.

New York Institute of Photography

We have before us an elaborate booklet exploiting two new correspondence courses taught in addition to the regular curriculum of the New York Institute of Photography. This home study, we read, is most complete, practical and rendered visual by over two hundred illustrations: The former is to be in loose leaf fashion and may be kept up to date. The

titles to these new courses are Motion Picture Photography and Still Photography, the latter comprising Portraiture, News, Commercial. The prospectus makes interesting reading and should help to crystallize the ambitions of many who are striving aimlessly toward some vague goal, to a definite purpose and a concrete system.

Mr. Harry H. Main

As far as we know he is not a photographer, but if he has not by this time learned much of that art and its votaries he is a duller man than his attainments would promise. He is a good enough man to be a member of the profession on every count and many feel he almost belongs to the association. His genial presence, his little movie machine, the travelogue, and those funny stories enlivened several programs at the convention.

The outstanding personality of the man is fondly remembered by those who met and heard him at the National Convention in Washington, D. C., and not a few Westerners inquired on landing in Portland if Harry Main would be on the program as advertised.

As Executive Secretary of the San Francisco Convention and Tourist League he travels much and meets many persons. If he succeeds in making friends of them all as he has of the photographers, and if he always succeeds in seeming to subordinate the business he is after to the real service he gives as he did in Portland, there is little he goes after that can be denied him.

A Remarkable Display

The Eastman display at the Portland Convention was pretty well spread over into the individual booths of several dealers, but the direct and special department devoted to the firm showed the usual, and to be expected, fine prints on Eastman papers and a number of transparencies that attracted much attention and commanded unusual admiration. These were shown by lights from in back and stood out with a relief that was stereoscopic. The booth itself was roomy, home-like and in taste, and the gentlemen in charge did much to add that personal quality which makes for friendship and cheerful trade.

A Curious Broadside

It happens now and then that an advertising device serves the consumer in a more material way than by merely informing him of something which he may, should, or must buy. The "Broadside" issued by the Morton Company to the owners of Circuit Cameras, is an example of constructive, pioneering advertising. This folder says so much in a few words, and illustrates so attractively what is said, that it may be called a text-book. We advise every enterprising commercial photographer who has not received his copy to read the notice of Morton Company in our advertising columns and to write the firm forthwith.

Carl L. Oswald

After a rather prolonged stay in the Orient, Mr. Oswald is back on his native soil, and commencing here, has begun to blaze a trail of cheerfulness toward his home. When not placing two Ilex products where one served before this optimistic gentleman lectures, attends club functions and generally makes the world cognizant of his presence. His talk at the California Camera Club was one of the most interesting of the season. There is a rumor that he is a connoisoir of beads and that his middle name has been changed to Photoplastic.

Mr. Clarence Stearns

While with us, on his homeward way, Mr. Stearns expressed his gratification at the activity shown throughout the west. Hearing such enthusiastic commendation from so high an authority we could have wished the gentleman had stayed longer in these parts, and while learning more of our spirit, might have given us more of his company. Mr. Stearns has a warming personality and a fund of anecdote that makes one feel better for his presence and causes the time to fly. May we hope he carries eastward as kindly a feeling for us and feels inclined to come toward the Pacific shores soon again? Certainly the Convention in 1925 will give him the best excuse for the trip and the welcome is already prepared for him. By then, Clarence, no bum knee for you'll have to dance.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

Camera Club of Cincinnati

The Camera Club of Cincinnati held its annual meeting on June second, in the Club rooms, in the Arno Building, Fourth and Sycamore Streets. The meeting was an enthusiastic one. The following officers and directors were elected for the ensuing term:

President, Dan Morganthaler; Vice-President, Charles Weddigen; Secretary, Herman Veihman; Treasurer, Harry W. Greene; Director—Charles Partington.

The meeting adjourned with a renewed spirit of enthusiasm for the production of more and better pictures during this year.

California Camera Club

As an aftermath to the moving, we have tales of prowess and heroic deeds of helpfulness. Members donated days of service and worked as if this were a personal matter. Indeed it is such spirit that keeps clubs from dry rot and maintains the fellowship which is the soul of any fraternity.

The new quarters are planned with facilities adequate for fifty more active members. There are five standard combined printing and developing rooms, each equipped with contact printing machines, dodging boxes, the necessary safelights for all kinds of plates, papers and films, etc. There is one room exclusively for developing and loading plate holders. There are five standard enlarging rooms, some with parallax lamps and the balance with condensers, and we intend to equip them all as rapidly as possible with our precision enlargers. There is also a room for lantern slides, copying and daylight enlarging. Facilities are being provided for working in platinum, oil, bi-gum and the other daylight processes.

Our studio has wonderful light for portraiture and with over 10,000 watts available for night work we expect to see some real studio pictures made.

The new social hall and lounge, with fireplace and easy chairs, is going to be mighty well occupied all the time. The new floor is a wonder for dancing, so we can expect it to be well filled on social nights, even though it is much larger than the old room. In fact, we expect to have enough space for lectures, formerly held in outside halls.

The board of directors has decided that when we are settled the initiation fee is to be raised; therefore, if you have friends who are interested, bring them in now.

August 15 to September 15.

MONTHLY SALON. For the initial display in our new home the Print Committee considers itself very fortunate in being able to present the prize-winning prints from the 1924 competition conducted by "American Photography," Boston, Mass.

This exhibit will consist of 107 prints by the leading exhibitors of this country and Europe, coming direct to us from the New York Camera Club, and this will be the only showing of this group on the Pacific Coast.

A glance at the following partial list of names will convey some idea of the importance of the exhibition, and it is hoped that members will encourage the general public to view them:

John M. Whitehead
Hugo Van Wadenoyen
Raymond E. Hanson
Chas. K. Archer
Holmes I. Mettee
Sophie L. Laufer
F. Drtikol
Lionel Wood
Karl Struss
H. Y. Summons
Forman Hanna
Dan Dunlop

The rooms will be open daily to visitors.

J. R. Wilding, Chairman,
Print Committee.

Newark Camera Club

A one man show, exploiting the splendid work of Mr. N. Courtney Owen, has been the month's feature. Mr. Owen is not only a pictorialist of prominence but a man who has been able to apply his art and skill to practical uses.

This club is taking its share of Salon distinctions. Seven of its members, represented by sixteen prints, were among the accepted contributers to the Toronto Salon. Two of these, Edward Browaski and George Winnett, Jr., are newcomers.

Pictorial Photographers of America

The Pictorial Photographers of America are preparing for a very busy and instructive season after a suspension of meetings for the summer.

Although there were no summer meetings there was a most interesting exhibition of views made in New York City at The Art Center, 65 E. 56th Street, that attracted a large attendance.

The members are showing a feeling of pride in the selection of four of its members being selected as contributing members to the Pittsburgh Salon, only six being the entire number selected this year. Other honors that have come their way, are the election as associate member to The Royal Photographic Society of Great Britain, the selection of Mr. William A. Alcock as one of the judges for this year's exhibition, and election as associate member to The Associated Camera Clubs of America. New members are being constantly added to the roll, representing nearly every state.

Plans are now under way for a very interesting and instructive season.

Our Book Shelves

Cameragraphs of the Year

One of the most beautifully executed books of its kind comes to us from Harringtons, Limited of Sydney, N. S. W. It takes the form of a Souvenir of the First Exhibition of the Australian Salon of Photography and contains some ten pages of text and forty-eight plates. These are reproductions of the pictures hung. Misonne appears with an unusually strong picture, H. Cazneaux shows a portrait of Norman Lindsay that is a masterpiece of sympathetic conception, Louis A. Goetz's "End of the Rainbow" is an old love of ours, "The Athlete With Bow and Arrow" gives Eleanor L. Smith an immediate standing with the masters, Keighley's "Turnip Field" disappoints us sadly. He is an idol and we refuse any evidence of clay feet. O. C. Reiter has not so much pictured the "Spirit of Pittsburgh" as he has embodied it essentially in graphic art. And P. Douglas Anderson, erstwhile Editor of Camera Craft does honor to his vocation with "Solitude." The figure is perfectly posed, the face particularly expressive, the atmosphere real and the composition faultless. With the "Chasm" Alexander Keighley once more steps to the pedestal where we choose to find him. O. H. Coulson is not known to us, but we propose trying for a closer acquaintance with him for "The Top of the Cliff" is exquisite. If only space were unlimited we might comment on every print shown.

We do, however, take the opportunity of gratefully acknowledging the compliments of the Editor, Mr. Cecil Bostock, of praising whole-heartedly his selection of reading matter, and of saying that the "Portrait of Boy With Dog" is worthy of his prominent position. We close with a wish that a copy of Cameragraphs might be in the hands of every pictorialist, every striving ambitious photographer, and every picture lover in the world. That cannot be, but we wish—we do wish that it were possible. If the book be obtainable at a price, we can assure the reader that its cost were cheap, whatever it be, and strongly recommend its purchase.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

Development in Daylight After Fixing
Some Recent Investigations by Messrs. A and L. Lumière and A. Seyewetz

Nearly a quarter of a century ago Mr. John Sterry found that it was possible to fix an undeveloped negative, wash it, and then bring out the image by means of what was practically a silver intensifier. After the fixing, of course, the negative could be freely exposed to white light: and there were those at the time who thought that in this method was to be found the germ of a process which would do away entirely with development in the dark room. Nothing much has been heard of it, however, although at the time we found it perfectly possible to produce a good printing negative by the means indicated by Mr. Sterry. In fact, this was demonstrated at several photographic societies. A drawback of the method which put it out of court for everyday photography was that the exposure had to be very much greater (ten or fifteen times) than was required for ordinary dark room development. The method was also open to the objection that the silver intensifier is very prone to stain.

What Destroys the Image

Messrs. A. and L. Lumière and A. Seyewetz have recently taken up this subject. They set out to ascertain the causes of the partial or complete destruction of the latent image in a plate fixed before development, and found that this was influenced by the following factors:—

A. Strength of fixing solution and time of action.

B. Alkaline or acid reaction of the fixing bath.

C. Time of washing, or in water after fixing.

D. Alkaline or acid reaction of the washing water.

Exposures only Twice the Normal

Their experiments were made with plates of the same character (Lumiére Blue Label), which were given exposures twice the normal exposure necessary to yield a good result with ordinary development. Hypo solutions of different strengths were tested; and with a 30 per cent hypo solution the plate was fixed in 2½ minutes, whereas it required 16 minutes to destroy the image.

The destruction of the latent image is prevented to a greater or less extent by certain alkaline substances in the fixing bath; these include ammonia, caustic soda, caustic potash, alkaline carbonates, trisodic phosphate, sodium acetate, and sodium sulphite. Of these the most active are ammonia, the caustic alkalies, and trisodic phosphate. For instance, by adding to the fixing baths already mentioned of a 30 per cent strength some 10 per cent ammonia (21° B.) the destruction of the latent image (which took 16 minutes without any such addition) was prolonged to one hour twenty minutes with 2 cc., 1½ hours with 5 cc., and 1¾ hours with 10 cc. of ammonia. When a plate was left in the fixer for twice as long as was required for the whiteness to disappear, the final image was still not appreciably weakened; and they point out that it is well to give this increased time, to prevent stains and to ensure complete action.

Sodium bisulphite instead of postponing the destruction of the latent image, they found hastens it.

The time of washing after fixing has a marked effect. Mere immersion in running water for 40 hours completely destroys it, whether the washing is done in ordinary or in distilled water, and whether the film has been hardened with chrome alum or formalin, or not. This destruction can be postponed by adding certain alkaline substances to the washing water; on the other hand it can be hastened by the addition of a small quantity of sulphuric, nitric or hydrochloric acid.

In order to change the latent image as little as possible, therefore, they point out that fixing should be done in a minimum of time, using a strong fixing bath with an alkaline reaction—as, for instance, a 30 per cent hypo solution to every hundred parts of which five parts of a 10 per cent ammonia solution are added. The plate should not be washed for more than one hour after fixing; and if this is done, an exposure of double that usually required will be sufficient to give an image which can be "developed" in daylight.

The Developer Used

The "developer" used was made up from two stock solutions:—

A

10 per cent solution of silver nitrate	75 cc.
Anhydrous sodium sulphite	185 grammes
Water	1,000 "

B

Paraphenylene diamine	20 grammes
Anhydrous sodium sulphite	20 "
Water	1,000 cc.

For use 150 cc. of A has added to it 30 cc. of B.

Immersed in such a developer the invisible latent image can gradually be developed up until it gives a satisfactory negative; and when development is complete the negative only requires washing. It has, of course, already been fixed. This process can be conducted throughout in white light.

The experimenters state that the image so obtained has an exceedingly fine grain. In fact, its grain seems to be independent of the grain of the sensitive silver salt, and is under control.

—Amateur Photographer.

Removing Sulphide Odor

While the stock solution of sodium sulphide gives very little ground for objection on account of its odor, even when diluted to form the darkening solution used in sepia toning, it is when the darkening bath is still more largely mixed with water in the washing of the prints, or by being thrown down the sink that objection may be taken to the odor of sulphuretted hydrogen, which for a long time lingers about the workroom. It is, however, a simple matter to take steps which will render this odor practically non-existent. In the first place the used sulphide bath should on no account be thrown down the sink, but should be poured into a fairly strong solution of potassium permanganate, which may be kept conveniently for this purpose in a wide-mouthed jar. The sulphide is at once chemically "killed" by permanganate. There is, however, a sulphide which is carried from the darkening bath by each print. If these prints are allowed to accumulate in a dish of water, the latter becomes a source of odor which may easily be objectionable. The trouble may be very largely avoided by giving each print, immediately on its removal from the sulphide bath, a quick rinse either in a dish of water or, better, under a rose jet. This removes the greater quantity of sulphide from the prints so that the latter may then be allowed to accumulate in a dish of water. In order to "kill" the odor from the washings which hang about the floor of the sink some permanganate solution should be distributed in the sink and will serve to keep the atmosphere of the workroom practically fresh. In reacting with the sulphide the permanganate forms a brownish deposit of manganese peroxide, which, when the operations are over, can be cleaned off by swabbing the sink with a sponge or bunch of cotton waste soaked in solution of sodium bisulphite.

N.B.—It is to be remembered that Chlorine is equally destructive to sulphuretted Hydrogen and attacks it in the air as well as in solution. It can be used in the form of Chlorine water or in the commercial Chloride of Lime or Chlorinated Soda. All to be had at the drug store. Only prints must not be immersed in Chlorine solutions—though a pass through rinse would not affect a strong print.

High-Key Printing

The production of a really good high-key print is a double work of art. This may be questionable grammar, I fancy, but its meaning will be plain enough. The process is art, the result is art.

What is a high-key print? Anyone familiar with the delicate "grey and white" studies which are a feature of the work of the Cadbys, will realize a real high-key print. It is a print which records full and good gradation without calling in the aid of black or any deep color.

The method of producing "Cadby-types" practised by the leaders is, to my mind,

difficult. For one thing, it is dependent on the negative for a start. Now a negative which produces a good high-key print by normal printing on a normal (or soft) development paper is a fine thing. It is far finer in delicate quality than the average negative is apt to be. Further, its production is restricted. A scene or a sitter which shows a trifle of dead black, deep red or heavy shadow will spoil things to commence with. Therefore, the making of a high-key negative is a problem in itself.

I will now own up that I have seldom made high-key prints professionally. My experiments in this line have all been for my own personal benefit or amusement. Still, I believe I have the secret of making them at will, in ways which might serve professionals or amateurs. The only important factor is this. One must be able to tell a high-key print from an under-exposed print, and under-developed print, a flat print or a "thin" print.

There are two ways of going to work. They can also be used in conjunction. The first depends purely on the choice of paper; the second, on the choice of developer for the paper. The negative in every case need only be good in the general sense of the word. A negative which gives a first-class print on self-toning paper will serve beautifully.

The best class of paper is chloro-bromide, but soft gaslight and bromide (normal or hard) can be used. All papers will not do, but there is a paper by nearly every maker which will serve. Kodura, Verona, Vitegas de Luxe and Criterion Extra Hard Bromide are a few; obviously I cannot mention all.

For high-key prints in bluish or neutral grey, use amidol without bromide or with the very minimum. Expose as shortly as possible and, if the negative is on the hard side for the paper used, modify the development as described in my recent paragraph on "Still Development." (B. J., 1924, Jan. 18, pp. 35-36). After a few trials, excellent high-key results will be got. With normally restrained developers, the tone will be neutral or olive grey.

High-key work by development offers a wider scope. Here the choice of paper is less limited, though the best results will be obtained with similar papers. The result depends on special formulae. Here is a good one—

A

Soda sulphite (crys)	1 oz.
Hydroquinone	2 drs.
Soda carbonate	1 oz.
Water	to 10 ozs.

B

Hypo	2 ozs.
Water	10 ozs.

C

Ammonia solution .880.

In use, try 2 ozs. of A and 10 drops of B. This will require an increase of exposure over the normal of about four times. Development will be slow. The hypo acts so as to render deep blacks impossible, and the proportion controls the strength of the print. The addition of C counterbalances the slowing and brings back the exposure to normal, but at the same time it seems to redden the tone somewhat. Try 2 ozs. of A, with complete or partial addition of 10 drops of B, and 5 drops of C in 2 ozs. of water. This will be found to give a developer of normal speed requiring normal exposures. Some amount of trial and experiment is necessary, however, and definite figures cannot be given. I have found the above, using the full amounts, suitable for Criterion Hard Bromide and contrasty negatives, but temperature plays a big part, and the developer goes off rather quickly.

With or without the ammonia, the great thing to watch is the exposure. Over-exposure ruins the result every time. The print should develop to the desired depth (allowing a trifle for loss in fixing), and no further. If the result is flat, reduce the hypo. If it is too bold, add hypo. If no reasonable modification will give the desired result—which is unlikely—try another paper.

Very beautiful results can be got on cream bromide paper by this method, results which for delicacy, exceed any normal print on the same paper. With the above developer and a paper which is suited to the work, the very finest of Cadby-types can be got without any trouble, and that from almost any negative. Thermit.

International Photographic Association

New Eastern Division Album Director

After years of faithful service Mr. C. F. Rice has resigned his office to Mr. Franklin Gray McIntosh, who brings a most encouraging aggressiveness and enterprise to his new duties. In a letter just to hand Mr. McIntosh states that he proposes forthwith to circulate the Albums and to start collecting prints for two more. Let every member in this division put himself in touch with him and get behind their Album Director. One gets in proportion as one gives and no more can be gotten out of your Association than you put into it.

Address—Franklin Gray McIntosh, 1520 Liberty Street, Franklin, Pennsylvania.

New Special Album Director

An innovation that will interest us is that of the Special Album, devoted to a specific subject, which will be issued at intervals, and is to be circulated on the usual plan.

Mr. Edward A. Mueller has been appointed Special Album Director and his notice follows:

To all members of the International Photographers' Association it is essential that you co-operate and your immediate help is necessary in order that the new "Special Album" which is about to be put into circulation be a success.

"Children" has been selected as the subject for this Album. Iet is be understood that the word "Children" does not necessarily mean two or more. A child can be used in this subject.

We all know that children can give us a great amount of original and characteristic material to work with. Prints should be unmounted and accompanied by full data, such as subject's name, time, lens, opening, speed, paper, developer and etc.

The last date for receiving prints is December 30, 1924, and now is the time to get busy if you wish to make this Special Album worthy of the International Photographers' Association.

All members who desire to see this Album kindly send name, address and International Photographers' Association number to—Edward A. Mueller, P. O. Box 20, Newark, N. J., U. S. A.

NEW MEMBERS

5364—H. P. Nielson, M. D., Cragmont, North Madison, Ind.
8x10, 5x7, P. C., 4x5 or 2¼x3¼ and 8-inch circuit of travel views, of Europe, Asia, South America, United States, etc.; for landscapes, views of public buildings, street scenes, etc., in United States, Canada or Mexico. I desire to exchange unmounted views as above. Class 1.

5365—Constable A. E. Hadley, R. C. M. Police, Dawson, Yukon Territory.
3¼x5½ of miscellaneous; for anything of general interest. I desire to exchange only post cards. Class 1.

5366—Randall's Studio, Box 451, Rosetown, Sask, Canada.
Class 2.

5367—Geo. A. Stephens, 149 Waterville St., Waterbury, Conn.
3¼x4¼ and 5x7 of landscapes and pictorial; for post cards of landscapes and child studies. Class 1.

5368—E. M. Addison, 29 Armandine St., Dorchester, Mass.
2½x4¼ and a few 5x7 of marines, landscapes and historical views of Boston; for any subject of interest. I desire to exchange only prints. Class 1.

5369—C. E. Baltzley, 2061 Dahlia St., Denver, Colo.
3¼x5½ and 4x5 of views, architectural subjects and flowers; for anything photographic, except post cards. Class 1.

5370—Herbert C. McKay, P. O. Box 454, Eustis, Fla.
Class 2.

5371—Fred H. Goodsell, P. O. Box 132, Quinter, Kansas.
Class 2.

RENEWALS

4191—T. M. Waumsley, 12 Brant St., Burlington, Ontario, Canada.
3¼x5½, 2⅞x4⅞, 3x10 Panoram of fires, wrecks, scenic, war pictures, Convention of Fireman and winter scenes; for the same. Class 1.

4201—E. A. Mueller, P. O. Box 20, Newark, N. J.
I desire to receive only clear sharp pictures any size, not mounted of foreign and U. S. A. scenes. Also Indians, animals, nature studies, nude and semi-nude female subjects. Same to be on any kind of paper and finish. All letters will be answered and photos not selected, returned in good condition with postage paid. Class 1.

5198—Walter H. Emery, Mexico, N. Y.
3¼x4¼ from 4x5 negatives of carefully taken views of natural scenery, home portraits of children, and miscellaneous subjects; for the same. Small sizes preferred. Class 1.

CHANGE OF ADDRESS

4549—Fred Goodwin, Covington, Ind.
(Was Harrison, Idaho.)

CAMERA CRAFT

SAN FRANCISCO CALIFORNIA

(CALL IT GAY-VERT)

Gevaert

CHAS. PARTINGTON

CINCINNATI, OHIO

Famous Pictorialist and Bromoil Worker says:

"Your Orthobrom is the finest bromide paper I have ever used and I have tried them all."

ORTHOBROM

DOUBLE WEIGHT ONLY

K1=WHITE—MATTE—SMOOTH
K2=WHITE—MATTE—ROUGH
K6=CREAM—MATTE—ROUGH
K11=WHITE—LINEN
K12=CREAM—LINEN
K14=WHITE—COARSE GRAIN
K15=CREAM—COARSE GRAIN

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

SIGISMUND BLUMANN, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

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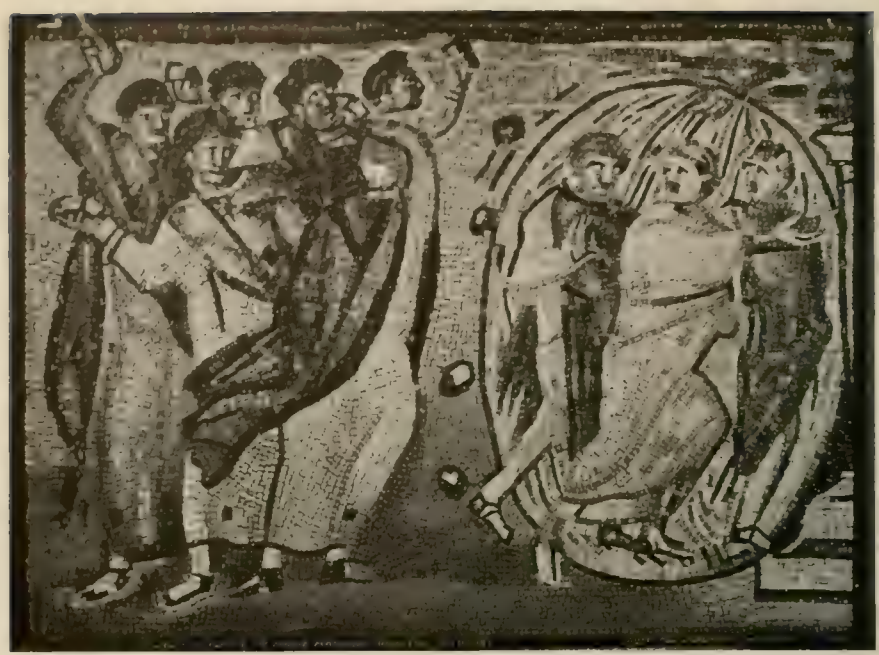
THE CAPTAIN OF CAPERNAUM Designed by PROFESSOR SELIGER

Photography Introduces a Renaissance

How the Camera Was Used to Exploit a Revived Art

By W. V. Hirsh

In Ravenna, Italy, the Mosaics, which made the place historically and artistically world-famed, were falling in ruin. The forces of nature and the ruthlessness of man had caused the cement and the inlaid pieces to disintegrate. Priceless gems of masters, long dead, were being destroyed. Then the nation awoke and strove to stop the damage, to restore, and to preserve. Native artisans tried and failed. Other countries were enlisted and at last a few scientists interested themselves. They solved the



FRUSTRATED STONING OF MOSES CONTAINS 135,000 COLORED PIECES

Reproduced from the original, made in 353 A. D., in the Church of Santa Maria Maggiore, Rome. The shades and blending of colors demanded all the science that is in photography and all the skill of the photographer.

problems and devised a Modus Operandi which developed into an industry. With bits of opaque and semi-translucent glass, cunningly colored and of almost indestructible constituency, they wrought masterpieces that should endure.

So painstaking are these artisans that they have made 11,000 tints and more than 1,000 shades of gold alone in order to enable them to reproduce the delicate shading of the picture of which the mosaic design is to be a replica.

Working in glass they were enabled not only to produce colors but the delicate nuances of shades, to modulate in tints, to strike reverberating chords of visual harmonies. The technique, itself, was new. The bits of glass were laid after the antique manner, at different angles from the base and with, what might seem to the uninitiated as, careless placing in relation to one another. The art consisted in this very oddity for the reflection, the merging, the relief, contributed to the sum total of perfection. Flesh tints became as of the flesh, the virility of livelier hues vibrated as from the painters canvass, and from this start the people of many nations, now are able to have the glory of Ravenna's mosaics duplicated in their homes, in the lobbies of hotels, depots, public buildings in general, and in modified forms in their gardens.

When this art was commercialized its ideals had to be preserved. It became necessary to put before the public eye what was offered. Samples were impossible on account of weight and size, so photography was brought

A MARINE FRAGMENT CONTAINING 27,000 PIECES

This gem of art is four feet square and its coloring called for the use of more than 200 different tints. It is a part of the Mosaic Wall Decoration of the Bremer-Lloyd Insurance Company, Bremen, Germany.

into service. How well one art may serve another is here demonstrated. With color-sensitive plates and proper color-screens the values were reproduced and, from such accurate photographic prints, it was possible to make cuts that should properly exploit the inlays. Nor was this as simple as it sounds for the myriad of reflections, the purposeful breaking up of the lighting, the lines of demarkation which lend character to Mosaic Art had to be shown, yet not exaggerated. Thanks to the progress of photography and the skill and ingenuity of the commercial photographers whatever was needed has been achieved.

Oddly enough the peculiar appeal of the photographs has aided the sale in unforseen ways. Architects who found themselves too busy to grant interviews to salesmen and who refused to take the time to call where the almost immovable samples might be seen, looked at the irrefutable beauty of the photographic pictures and saw possibilities which words

PASSAGE THROUGH THE RED SEA — FOURTH CENTURY MOSAIC

From the Church of Santa Maria Maggiore, Rome. This is one of the pieces that worried the photographer, though the result is all that could be desired.

might fail to convey. Professional men in other lines, who might not have been considered prospective buyers or could not otherwise have been reached happened on the prints and came to the places where the Ravenna Mosaics were exhibited. An amusing incident is that of an amateur photographer who by chance saw some of the photos and coming to the place where some of the best examples had been inbuilt, photographed for sheer love of doing, and subsequently showing his achievements brought about a large contract. All in all photography as an art naturally helps its sister arts and trade as well.

Holiday Cards by Photography

By Carl A. Bergmann

Illustrated by the Author

Of all the gifts that we receive the Home-Made ones are treasured most. For, after all, it isn't so much the intrinsic value of the gift itself which makes it dear to us, but the sentiments attached to it. When we know that the present was made by our friend's own hands we feel that his, or her thoughts were centered on us during the work and that those thoughts were inspired by either love or affection. Therefore, how much more do we enjoy such a gift! How a ready-made one, which was purchased at a store, suffers in comparison!

FIGURE 1

FIGURE 2

We all know how perplexing it is to select appropriate Christmas presents when that delightful holiday comes along and so I thought that perhaps a few suggestions from me regarding "How to make Holiday Cards by Photography" might prove welcome to those who have made Photography their Hobby and to those also who follow it as a profession.

Photography lends itself particularly well to that purpose, as even those who have no skill or experience in either drawing or lettering can produce quite artistic and pleasing effects. And the further advantage of it is that after you once have made a satisfactory composition you can make duplicates of it with the greatest of ease in any required number, a point readily appreciated by those who have many friends.

Many are the subjects which can be used successfully, for instance, your own portrait, the Baby's smiling face, the ever interesting Kitty, a pretty Dog's head, a bit of local scenery, a corner in your flowergarden, or just a flower, such as a Rose or other favorite one, your residence, a landmark, a landscape, sunset, seascape and thousands, too numerous to mention. (Those subjects, of course, are not all suited for Christmas but for all kinds of other congratulatory cards.)

To give an idea of what can be done along those lines I will describe how I made my last year's Christmas Card. You can then follow your own ideas and plan other designs to suit your individual taste.

FIGURE 3

FIGURE 4

Fig. 1 shows a photo of the Lick Observatory in winter, a picture of the original plate and too large for my purpose. I had to make a new and smaller negative and on a plate which had been put vertically in the plate-holder. Wishing only the main buildings to show, I moved a white cardboard up and down in front of the lower part of the picture while I copied it and so secured a new negative of the required size (fig. 2). This had the Observatory near the top of the plate, showing only the main buildings with a blank white space underneath.

Next, a negative was made of the border, Fig. 3, which you see around the picture. This had originally been around an advertisement in one of

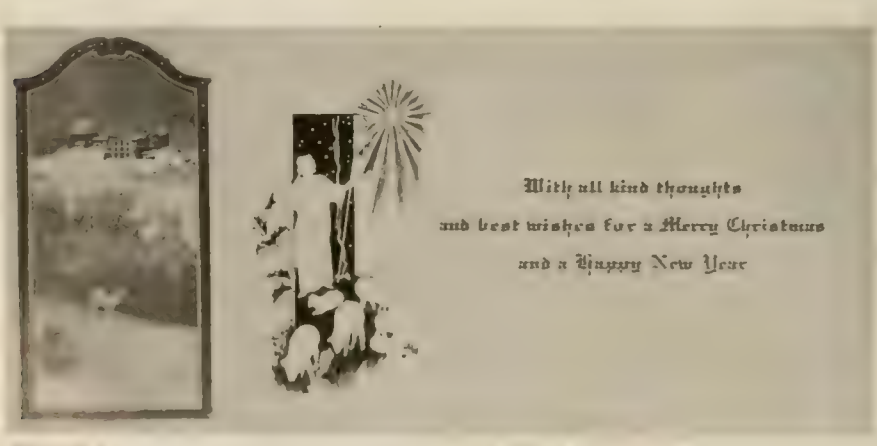
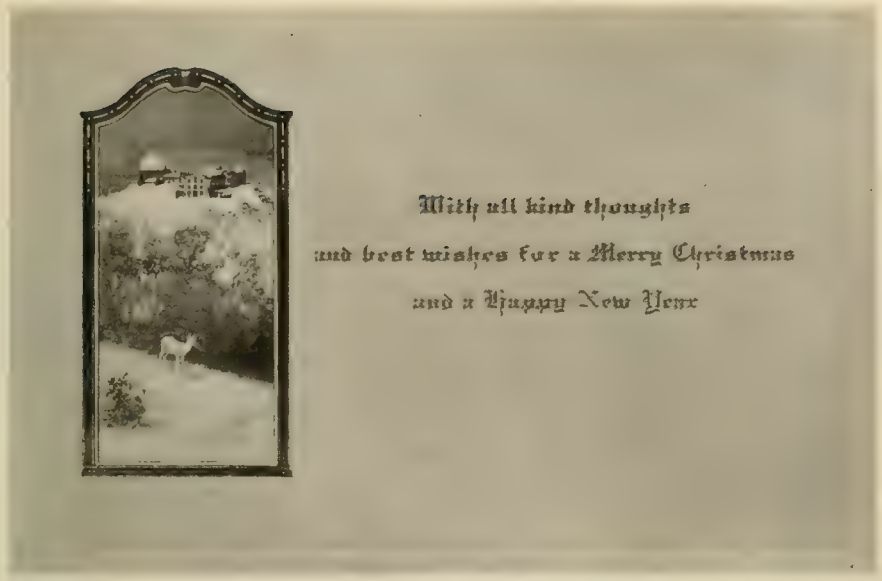


FIGURE 6



THE FINISHED CARD

the monthly magazines. The advertisement inside this border was cut out with a sharp knife and also the paper and printed matter on the outside, so that nothing remained besides the actual border. It was now put in a printing frame, backed with black paper and copied to the required size. When the negative was dry it was put over the Observatory negative, face to face, and a transparency was made of the two. I had now a transparency of the Observatory with the border around it and a practically clear-glass bottom part. Over the latter was fastened a transparency of the Deer (Fig. 4) which seemed to fit in perfectly, very little handwork being required to produce a good match. Blending in the tree tops was about all that was necessary.

This really finished the most important part of the picture. From this composite transparency a small negative, Fig. 5, was made and of a size to fit the card which I had bought at a store for the wording (Fig. 6). A print was then made, everything outside the border was trimmed off and this little picture (Fig. 5) was then pasted over the design which was originally on the store card. A few rays from the star which protruded from under my little picture were later retouched away on the last negative and my work was finished.

Now, as some of my readers may be dismayed by this recital and feel that this is a process much too complicated for them I will point out a much simpler way by which quite pleasing results may be obtained and by which innumerable combinations may be made.

Many of the magazines contain advertisements with very pretty borders around them and by copying these and placing your own pictures inside of the borders and then making a negative of this combination you can have an attractive picture by only a few manipulations. Often you can put your own picture direct on the advertisement on the original print

FIGURE 8 THE COMPOSITE

and so save making an extra copy, in that case only one negative being required.

Fig. 8 was part of an advertisement in one of the popular magazines. The cat's head was trimmed to fit the print, a negative was then made of the two, the outside of the picture blocked out by opaque and that was all that was necessary.

Your Camera

By Christie Tyler

You say I'm bright and clear all through,
But there's one thing I cannot do
And that is just to talk to you—
So I will write a line or two
And tell you what I'd have **you** do—
Please keep me free from sand or dust
And high and dry from damp and rust,
And when you hike with Bill or Joe
Remember "Buddy" wants to go;
For if you find a lovely view
I'll take it down in truth for you—
That sloping hill, that sun-lit tree,
Those silver clouds above the sea,
For all the wondrous light and shade
By the Great Almighty Sculptor made
In radiant beauty, Heaven-sent, free—
Are here that you and I may see;
So I will help, and never cease
Until you make a "masterpiece".
Good by—good luck you friend of mine
I wish you all success—and sign—
Your clear eyed chum, your Buddy-kid—
Sure look-out, keen examiner—
Your faithful pal—Your Camera.

Photography in China

By John D. Zumbrun

Camera Craft Company, Peking, China

Illustrated by the Author

The vast, unwieldy mass of China lies drowsing in the sunlight of the ages. Its arts and literature antedate known history and she has been content for centuries to let this aristocracy of mature precedence content her. Within the present generation a renaissance has come and the people are lively in a growing occidental civilization. This may be for better or for worse, depending on point of view. However, what interests us is that, among the European adoptions, the Chinese have chosen photography as a profession and pastime. The field for photographers is tremendous and dealers find a large market. Twenty years ago the camera was an object of superstitious fear. Even the cultured classes dreaded it and a white man trying to snapshoot a native or a temple risked his life. It has come to pass that the Chinese are enthusiastic amateurs. One may see a gaily dressed, gorgeously colored young lady posed in a garden, against a flower-hung wall, before a temple, or at the edge of a lotus cov-

GREAT WALL OF CHINA NEAR NANKOW

CAMELBACK BRIDGE, SUMMER PALACE, PEKING

ered lake, while her gallant trains a very late model Kodak at her. At the Y. M. C. A. sports, last year, as many as fifteen or twenty native photographers were in evidence snapping the activities.

The country is pretty well open to tourists and their cameras. In the interior where foreign influences and customs penetrate slowly there is still a risk in openly using one's instrument: The lens is still the eye of a devil. In certain parts it is believed the lens is made of the eyes of Chinese babies. In the larger cities there exists a reticence on the part of the better class people toward having their picture taken by a stranger who asks neither leave or right. The European is sometimes outlandishly rude, but he is safer from punishment in Shanghai than he might be in an American city, were he to indulge in the same liberties.

The portrait photographers who cater to the Chinese are mostly natives. They produce the stereotyped pictures of twenty-five or thirty years ago, both as to lighting and sizes. This is what is wanted and the gallery men are by no means to be held in contempt for supplying the demand as they find it. The Europeans and Americans rarely have formal portraits made till they get home, but a brisk trade exists in taking outdoor pictures of groups and singles at the pleasure resorts and temples. It is considered an indispensible feature of travel that prints be sent to friends showing a pagoda or an image for background. The demand for views is very great and especially for those taken of remote and forbidden parts of the country. The Great Wall has an enduring charm for the traveller. In our establishment we dispose of many hand colored

THE ENTIRE FORCE

prints in the course of a day. The Chinese colorist is very clever and a clean worker, and his gay tints catch the eye but do not outrage the truth, for the hues are vivid and rich in a Chinese city.

Labor is cheap. The help is loyal and industrious. We employ twelve Chinese in the developing and printing department at an average of less than two hundred dollars American Gold. The best man, an expert, gets $65.00, Mexican, equal to $33.00 American. The apprentice boys get $6.00 Mexican or $3.00 American. The latter are from twelve to fourteen years of age and wash the prints by hand in successive changes of water: Labor being cheaper than the investment in machinery, electricity and water.

Commercial photography exists only, as such, in the larger cities and is practiced by the Chinese, though in Shanghai and Hongkong the whites control a virtual monopoly. The Commercial work is of the simpler sort. Composites are unknown but the straighter class of product is clean and worthy of credit. It might be stated, too, that the Photo-Finishers are reliable and at least as able as those in America.

American Cameras are popular but the German's have intensively canvassed the population and have made advantageous connections with the jobbers and dealers. The exchange values, too, give Germany a great advantage. Notwithstanding which Kodak is as familiar in Peking as in New York.

TEMPLE OF HEAVEN PEKING, CHINA

What Photography Means to a Photographic Editor

By A. H. Beardsley, Publisher of Photo-Era Magazine

It is a pleasure to accept the invitation extended to me by Mr. Sigismund Blumann, editor of **Camera Craft**, to write an article on what photography means to a photographic editor. In passing, let me say that a similar invitation has been extended to Mr. Blumann to prepare an article for the readers of **Photo-Era-Magazine**, to whom he is well-known as a contributor. Such an exchange of articles between photographic editors not only does much to unify the photographic press, but it proves convincingly that competition, so-called, need not interfere with mutual respect, good will and, in the case of Mr. Blumann and myself, sincere friendship.

As a photographic editor and the publisher of **Photo-Era Magazine**, I believe that I have some conception of what photography means to me. In fact, I not only have this point of view, but I go further and say that I also think I know a little about what photography **should** mean to a photographic editor. What I am about to say is based on a photographic experience of over fifteen years. It includes the gamut of first-hand knowledge from the days of pasting labels on hypo-cartons in the establishment of a well-known dealer to eventually becoming publisher of a photographic magazine. I believe that what I have to say is, therefore, based on practice and not entirely upon theory. No doubt some will not agree with what I have to say; but I trust that all will grant that I write with sincerity and with no desire to pose as an authority whose word is final. No one knows better than I how much there is left for me to learn.

To me, photography is an art and a science. It is also an important factor in the development of intellectual and spiritual strength. This may not be apparent at first glance, but I believe it to be true. On the other hand, photography, if it be reduced to a mere set of formulas, rules

of composition and a dogmatic system of procedure, becomes cold, hard and lifeless. To my mind, the photographic editor should strive to find the right road which will avoid extremes and make the science and art of photography sympathetic, helpful, inspirational and human. In fact, I will even go so far as to say that I would prefer to countenance so-called mediocre photographic work which showed signs of promise and was done with enthusiasm and happiness than to insist upon perfect technique, obedience to every law of composition and bring about a feeling of dread, doubt and unhappiness in the mind of the beginner or the pictorialist. From personal experience I know that the human, sympathetic treatment of many a beginner has resulted in the making of a salon exhibitor. To look for all the good things in a print before beginning to point out its defects is a contributing factor in making a photographic editor of real service. Mind you, I believe absolutely in the value of insisting upon first-class work. My quarrel is not that this is done but rather with the way it is sometimes done. After all, it is the man or woman who is close to human frailty and trouble who understands and who can offer real help in time of need. The photographic editor who appears to be high up on a pinnacle, unapproachable, cold and unsympathetic to the humble beginner or earnest worker fails, in my estimation, to render true service. In short, just being human, sympathetic, quietly helpful whenever and wherever possible, and holding high ideals of photography and its intellectual and spiritual values, is my conception of a good editor of a photographic magazine. Those who question my reference to the intellectual and spiritual value of photography may be interested to know that in my own experience I have seen men and women catch the vision of higher and better things through the use of a camera in God's Great Outdoors, where the wonderful realities of life may be found by those who seek in sincerity and in truth.

With regard to the contents of a photographic magazine, I believe that it should be clean from cover to cover. True art and true photography are always true, pure and a delight; but sometimes what passes for art is merely a pretense which, in the end, reacts unfavorably upon the photographic editor and his readers. There should be as much variety of illustrations and text as financial and editorial conditions permit. Too many salon pictures are discouraging to those who have not passed the record-making stage of photography. On the other hand, too many pictures of the snapshot type offer no example for the enthusiastic worker to emulate. Again, too many technical articles are anathema to most readers and are relished by only a few technicians. The experienced photographic editor knows that it is virtually impossible to please all classes of readers in any one issue. Why mention these things? Simply, because a good editor is confronted with this problem and the manner in which he meets it determines his success and that of his publication.

Perhaps the most important part of the work of a photographic editor is the part he plays in making his magazine stand for something editorially. In my estimation, the editorial matter throughout any publication reveals whether or not the editors have caught the vision of high ideals,

service and friendliness. Splendid illustrations and excellent articles can never quite make up for the lack of friendly editorials which make the reader feel that he can clasp the editor by the hand as a friend. Perhaps my readers may choose to remind me that a photographic magazine should not be conducted on the lines of a social uplift or home-for-little-wanderers principle. True, but what does all our art, technique and ideals of beauty amount to if we must be cold, reserved, mathematical and dully scientific about photography. How, might I ask, can the pictorialist put beauty, idealism, character and truth into his print unless he first understands the dynamic force of these things in his own life and in the photographic magazine he reads? How can this same pictorialist make a picture of a happy little child unless he first knows how to make it smile? There may be a measure of success in a photographic magazine conducted on strictly business or commercial lines; but it lacks the heart and soul which no money can buy. To be sure, the printer, engraver and paper-house must be paid, and there must be money to pay the editor's salary; but beyond enough for a living, financial considerations should not outweigh the deeper, more human factors of kindly service and helpfulness to every reader of a photographic magazine. Perhaps, some may say that such idealism will lead directly to financial ruin and that the public to-day has very little time to devote to the deeper, finer things of life. From my experience men, women and children are hungering for the things which satisfy, which leave no regret, no scars, and which help to make this world a happier and a better place in which to live. Photography, through the right photographic editor and right photographic magazine, can serve humanity as never before; and in the serving there will not be a whit less true art, thorough technique and pictorial composition.

In conclusion, let it not be assumed that because I have here set down my ideals that I have attained them all. However, I do say that I am trying manfully to practice what I preach. I hope that my conception of what photography means to a photographic editor may, at least, indicate the road which I sincerely believe is the one which leads to success in photographic journalism. High ideals, persistent and honest effort, integrity, understanding and clear vision lead to success in every other human activity. Why should not the same rule hold good for the photographic editor and his interpretation of photography?

The Los Angeles Salon

We had every hope in the world staked on giving our readers an exhaustive review of the Los Angeles Salon, with a lavish number of reproductions and, to that end, reserved space to the last minute. Camera Craft must be out on time and engravings, type-setting, proof-reading, pasting dummy and printing require arduous days so we are compelled to reserve the Pictorialist of Los Angeles for a future issue. S. B.

MORAINE LAKE AND VALLEY OF THE TEN PEAKS

Selling Travel to Millions with 20,000 Photos

By Bertram R. Brooker

Illustrated by J. C. S. Bennett

(The following article reprinted from "Printers Ink Monthly" will give our readers another conception of how photography in its various phases is becoming an integral part of business. That so important a magazine should play up the subject is evidence not only of the interest in, but of the importance of pictorial and commercial photography.)

Sixteen years ago in the Canadian Rockies two men, accompanied by a guide, fell in with a party from a neighboring Alpine Club, and were invited to join their camp. Early next morning they set out to scale an imposing peak. The summit was reached at noon, and the elder of the two strangers posed the party against the topmost crag with the idea of getting a photograph. He set up his camera on a rocky ledge, just large enough to accommodate the tripod. His own footing was upon a snow covered boulder. The lens was adjusted and the picture about to be taken when the boulder slipped. The man with the camera tried to clutch the shelf of rock, but he was a second too late. He felt himself falling through space. Luckily. instead of a deep chasm, a bed of packed snow, twelve feet or so below, broke his fall. He was just congratulating himself on so slight a fall when the snow in which he stood thigh-deep began to move. He had started a snow-slide.

The snow traveled down the mountain at a terrific rate. Every moment the man expected to fly over a ledge and be killed, but although the descent was a sharp one, nothing of the sort happened. The snow finally came to a stop against a ridge of rock, and its unwilling passenger, with elbows of his coat and shirt worn through in his endeavors to check the preciptious journey, felt that he was safe.

A CORNER OF LAKE LOUISE

His companions, who had watched the slide with terror, came to the rescue, and the victim of the treacherous snow "got off" with a few bruises and a pair of badly lacerated arms.

The hero of the adventure was J. C. S. Bennett, official photographer for the Canadian Pacific Railway, and the incident is only one of many daring and dangerous exploits which this veteran Camera-man has experienced during his twenty-two years of service with Canada's great railroad system.

Mr. Bennett is an "old time" photographer who has been in business for more than forty years. From an apprenticeship in the days when cameras and plates, developing, and printing, and other paraphernalia and processes were of the simplest character, he has himself developed into the head of a department which occupies the whole sixth floor of the Windsor station in Montreal.

To procure some of the remarkable panoramic views of great mountain regions, featured very largely in C. P. R. advertising, Mr. Bennett has had to climb so high as 10,000 feet or more on two or three occasions. The "circuit" camera, which enables the photographer to sweep the horizon in a complete circle, is one of the most outstanding advances in photography since his early days, according to Mr. Bennett. Certainly it has made possible the most magnificent panoramas of Western Canada's great mountain ranges.

Another great advance is the perfection of films. "I was among the last to hold out against them" confessed the veteran camera-man; "but eventually I was convinced that equally good results could be got with them, and for the past two years I have used no plates for outdoor work.

GLACIER, VALLEY, AND PEAKS NEAR BANFF

When I tell you that films occupy only one-tenth of the space and weigh only 1¼ pounds to the dozen (8x10 inches) as compared with six pounds to the dozen for plates you will see what a difference it makes to the photographer's "pack".

"A third advance," commented the official photographer, "was the invention of the 'projection printer'. This is a machine which makes a print of varying size according to the distance between the negative and the print paper, and which automatically adjusts the focus as it is raised or lowered."

The enlarging equipment of the Canadian Pacific Railway's photographic department is also of the latest design and complete in every way. One large room is devoted solely to panoramic printing, where eight and ten foot mountain panoramas are regularly produced on heavy board for display purposes. For special distribution even larger prints are made. One enlargement, now hanging in the new Mount Royal Hotel, Montreal, which was made from one of Mr. Bennett's negatives of the famous Burgess Pass—generally regarded as his masterpiece—is reputed to be the biggest enlargement ever made in North America. It is twenty-one feet wide by forty-one inches deep.

The Rockies, although bulking large in the C. P. R.'s collection of photographs, occupy only a portion of the huge illustrated index, kept in thirty large albums in another room of the tower. These are loose-leaf books, bound in half-leather, containing several hundred fourteen by twenty-two inch pages. Here each new print is pasted in rotation as it is made, and given a serial number.

BANFF SPRINGS HOTEL

Even these heavy volumes do not contain the whole collection. Elsewhere are twenty-three albums containing pictures taken by Mr. Bennett some twenty years ago. A different system of numbering is employed for these volumes; but both sets of numbers are amalgamated in the one hundred and fifty or more loose-leaf albums kept by the Publicity Department, which occupies offices on a lower floor of the station.

An idea of the great wealth of advertising ammunition of all kinds collected in this way by the Canadian Pacific Railway may be gained from the size of their print albums which cover every conceivable heading and are as thick as a bible.

Not all of the twenty thousand pictures classified and indexed in these albums were taken by the company's official photographer or his staff. The C. P. R. buys a great many photographs from both amateurs and professionals throughout the country and in other parts of the world. A fine collection of views in China and Japan, for instance, was recently purchased to illustrate a series of booklets on the company's steamship tours to the Orient.

About eight years ago the company conducted an amateur photographic competition, advertising it in the newspapers throughout the Dominion; but, although some good negatives were obtained in this way, the contest was not sufficiently productive to warrant its repetition.

Another plan that has worked out to better advantage is now employed when views are desired of a particular region. Just, recently, for instance, the company was anxious to get some good pictures of the Gatineau Valley. A few advertisements in the Ottawa newspapers brought a flood of excellent prints from which the required number of negatives was selected.

In the last year or two the C. P. R. collection has been considerably augmented by the employment of a famous Philadelphia photographer, whose outdoor views, especially of fishing and hunting scenes, are greatly admired throughout the continent. This man made a series of two hundred negatives for the C. P. R. last year reserving the right (which the company was glad to grant) of selling prints to publishers, advertisers, and others.

The Eastman Kodak Company recently ran an advertisement containing one of these photographs of a fishing party at Nipigon, Ontario, from the series taken last summer; and in the same magazine in which this appeared was another Nipigon view used by the Horton Manufacturing Company, of Bristol, Connecticut, maker of fishing rods.

The C. P. R. naturally is glad to have such pictures used as widely as possible, and in addition to their use in booklets and other advertising matter directly produced by the company, the Photographic Department annually turns out about thirty thousand prints, two thousand enlargements and nine thousand lantern slides for distribution wherever their use is deemed valuable.

The subjects covered in the collection spoken of comprise almost everything from Scenery to Golf, from Education to Industries, and from Portraits to Snow Plows. The vista of possibilities for photographs in the field of commerce are opened to amateurs and experienced professionals.

The Passing of Albert William Craig

It is with profound sorrow that we tell of the death of one who was known and loved by all who knew him as a photographer and a man. Born 1848, died October 9th, 1924.

Requiescat in Pace.

Portraiture: An Art

By Frank Scott Clark, Detroit, Michigan

Illustrated by the Author

Art, after all, is merely a language by which to hold a world-conversation with one's fellow-men; to communicate to them something of our heart and soul experiences, some idea, some sentiment, some feeling, even some faith, but always in an emotion-stirring form. It is the greatest social binding-force vouchsafed to man.

The poet writes what he has to say with pen and ink on paper; the painter writes with brush and pigment on canvas; the sculptor writes with mallet and chisel on marble.

One artist may write in an elegant manner, another in an awkward manner; but the value of what each one writes—poem, picture, or statue—will depend, not upon the vir-tu-o-sity of his handwriting, but on the social value of what he says, and the penetration, emotioning power with which he conveys his message.

Therefore, be his handwriting never so clever, if his message is trivial his work will be trivial, if his message is sublime his work will be sublime.

Power in art may be compared to the power of woman. It does not consist in force, but in charm. Emotions of life from vertical to horizontal establish the modifications that may occur; between these conditions, all life exists. Presentation, portraiture, illustration,—all depend upon drawing to give form to what the eye takes in. Sight means the whole scene taken in at once. The eye is struck first by spots, and secondly, by the shape of the spots.

Concentration having been carefully considered as to the foundation of drawing, its accessories of ornamentation will follow. These may take in style, beauty, character, emotion, expression, symmetry, and numerous other factors.

Values are most important. The best method of illustration of true values would be to stretch a wire from a dark end of a room to a window; arrange tufts of cotton on this wire, we will say, from six, eight, to ten inches apart; turn your back to this wire, take a mirror in your hand, upon looking into it, you will see registered all of the fine gradations of tone these white tufts of cotton receive from the source of light. The first tuft will be the "plus" light, and you will have registered in the mirror all of the lovely values that could possibly be rendered on a sensitive film by skillful photographic manipulation.

CORRECT SPACING AND PROPER USE OF THE HANDS

Arrangement is a happy view, and the eye takes in all. The eyelashes lead the spectator to the scene while the eyelids frame the interest. The great opposition takes place in the pupil. It is the accent of the iris. Minor interests will take place on the eyelid curves.

Composition is the pilot of your imagination to guide you to common sense; it is the process of avoiding monotony; and teaches how to express one's ideals in the most forcible manner. Composition is like a monogram, interlacing letters together. The objects of a scene must knit together in one harmonious whole of light, tone, value, line, spot, and mass.

A composition may be compared with a plant having roots, branches, and flowers, all the lines running to one point, and the interest spots as the flower cone. It may be said to have the general conditions of a valley where all small rivers run into a large one.

SIMPLE BACKGROUND AND PROPER PROCEDURE WHEN FACE IS STRONG

TRAINING SIDES OF BACKGROUND TO LEAD EYES TO FACE AND GIVE DIGNITY TO HEAD

The first stage of a composition will be to place the big masses; secondly, place foundations under each mass, the interest in the masses beginning always with the principal one. The last stage will be graceful lines,—felt in the mass general. This, of course, applies to figure composition.

Light and dark masses tuck into one another, light curving one way, dark the other. A dark curved mass may have a light one curved inversely with a half tone associating the curves together. Connect the masses by running one into another, sometimes light, sometimes dark being the leading lines. Model from dark to light and worry the light as little as possible. Let your eye run beyond the shadow side, always looking from dark to light. Decide on the angle of light and let the shadows be contrary in direction. Keep the angle of light very decided or your drawing will have a confused look. Back up your lights by supporting darks to show the angle of direction.

The main interest in a picture should look at **you** while the accessories look at **it.** Have but one principal interest in a composition; all other objects must be subservient to it. The eye should be continually attracted to it, alone. The great opposition will occur where the interest is placed. Arrange everything in the picture to fade away from the eye of the spectator. If you wish the interest to come emphatically forward, have some objects or mass at the side to help force it toward your eye; if you wish the interest to go forcibly back, have an object or mass to point toward it and run out of the picture at the bottom. Frame and interest should come forward,—the rest of the scene go back. The eye runs into a scene on lines and stops wherever there is opposition. The greater the interest the more forcible will be the opposition.

SIMPLE BUT STRONG COMPOSITION WHERE SIMPLE LIGHTING SETS OFF THE FIGURE

FRAMING IN EDGES OF PORTRAIT AND SHOWING EFFECT OF OVER-CROWDING SPACE

The silhouette of the main interest attracts, but the eye is kept on parts of the picture by a general interest line. The eye should run to this interest more quickly from the bottom than from the side or top of the picture; therefore, there must be interruptions at the side and top lines. The pattern in a portrait is the attractive part of a movement general. If the interest is quiet and no movement occurs, the background may supply it. When the main interest is in the center of the portrait or picture composition, have the background and the foreground very much alike. Keep the back of a figure that is not interesting near the frame. Every composition has a backbone which may be placed where required, at sides, bottom, or top of your portrait.

Invention in composition consists in making connection with objects that are natural to the subject, but always keeping them secondary to the great interest. Where two directions are contrary to one another, you will find the interest where the greater opposition takes place. If the principal interest does not appear sufficiently forcible, it is because too much has been made out of minor objects. Every hero requires his stage on which to play; do not crowd him.

A composition having one figure requires all masses and lines arranged the same as one containing many figures. A mass having the form of a pedestal directly under a figure takes out action and gives solidity and dignity. By using drapery or accessories, one can give a figure more action without forcing the real movement. More action may be given the symmetric form of a figure by running oblique lines to one point. Action is generally expressed by an oblique, dignity by a vertical, and solidity by horizontal conditions.

(To be concluded in the December Issue.)

SCENE IN OKTALER. ALPS

GESSNER HELMUTH
Graz, Austria

Third San Francisco International Salon of Photography

MIDSUMMER NIGHT — J. M. WHITEHEAD, Alva, Scotland

Third San Francisco International Salon of Photography

A Review of the San Francisco Salon

By Anson Herrick

Illustrated by Photo Engravings from the Originals

The Third San Francisco Salon like the majority of photographic exhibitions presents a group of pictures which have been chosen by a Jury of Selection. Because of this and because of the frequent discussion anent Juries in general, their qualifications and methods of selection, a short consideration of the subject in general and of the judging of this Salon in particular should not be out of place as a preliminary to a review of the prints selected.

Every member of a photographic salon jury, if it is to be ideal, must not only be so trained in methods of composition as to quickly detect deficiencies as well as merit but should know photography in general, and pictorial photography in particular, in all its phases. He must be so

THREE BOATS — ALEX KEIGHLEY, F.R.P.S.
Steeton, England

Third San Francisco International Salon of Photography

catholic in his opinions as to permit unbiased conclusion as to the merits or demerits of the representation of a subject in which he has no interest or may even dislike. In brief he must be trained, experienced, judicial. But even if each member of a jury be all that is required of the individual there is yet the requirement that the jury must be enabled to function judicially and broadmindedly as a body. Personalities differ. There is the dominant and there is the acquiescent. One dominant juror may result in the final selection being his selection rather than the selection of the group. The remedy for this is a method of selection which prevents the possibility of one man action.

The jury of the San Francisco Salon has been competent in its individual members and competent in its modus operandi. Of its four members one has had a life long connection with all the graphic arts and a keen interest in and knowledge of photography, while three are pictorial photographers of long experience, familiar with every phase and school of photographic art. Its method of selection was by silent vote through the use of an electrical recording apparatus so arranged that each juror recorded vote without knowledge of the votes of the others. All prints were first reviewed to facilitate the determination of a standard and to familiarize the Jury with the entries. In the actual selection the work of each entrant was presented as a group. After sufficient time for general con-

CALIFORNIA HILLS — H. A. HUSSY, California

Third San Francisco International Salon of Photography

sideration the Jury was asked to vote on the first print then on the second and so on. A print receiving less than two votes was considered definitely rejected, two votes set it aside for reconsideration, three or four gave it acceptance. Prints for reconsideration were afterwards again viewed, three or more votes being again required for acceptance. The intent of each member was to select only those entries which were, in his individual opinion, of particular merit, pictorial interest or novelty and to reject those considered defective in composition or execution or lacking in pictorial interest or feeling. The names of entrants were not called as prints were presented but there was no intentional secrecy. To make a point of secrecy of entrants is to unthinkably impugn the integrity of a jury if not to directly accuse it of personal bias and in point of fact would in any event be unavailing because in many cases the type or character of the work of particular entrants is so well known to the majority of the Jury that the name of the maker is made apparent by the print itself. Any photographer with the qualifications for a juror would have little difficulty in instantly identifying the work of Chaffee, Watkins, Harting, Lionel Wood, Petrocelli or Libby, to name only a few of the many who have developed a type or quality of work that is individual.

Having asserted that the Jury was competent both individually and collectively and that it functioned carefully and judicially it may seem inconsistent to immediately further assert that it was capable of error and, worse possibly, that in instances it did err. Such is not inconsistent in fact, however, because both assertions are more or less matters of opinion. In my opinion the presentation of 278 prints would have been strengthened as a group by the elimination of about fifteen or twenty. I had the same opinion last year and in discussing the point with a group at the gallery I found that they had the same opinion. But, each one of the group had a different opinion of which fifteen, or whatever the number was, should have been left out. It must always be remembered that there never is or can be a fixed measure of a picture's merit. Then too, not all prints were unanimously accepted so there were many that lacked the requisite merit in the opinion of one of the four jurors. On the other hand there were many prints rejected which two jurors considered acceptable. Accordingly, when in some few instances I disagree with the Jury it is not inconsistent with the belief that the Jury has performed its difficult task with credit to itself. Rather the belief is supported by the limited number of disagreements with its selection.

The ability of American workers to successfully compete with their European colleagues may be at first disputed. In technique, in care in finishing and mounting, in general craftmanship, the foreign worker, as a rule, unquestionably excels. The American is occasionally prone to hurry, to occasionally spoil a wonderful thing by evident carelessness in finishing. The work of Denis Ronai of Budapest, Lionel Wood, Harold Leighton, Alex Keighley and Herbert Bairstow of England, Echague of Madrid, Adolf Fritz of Vienna, Jurostav Krupka of Prague and Gessner Helmuth of Graz (Austria) is compelling and delightful. At first it seems superior to anything which we have to offer but on study we find that part of its charm lies in the strange old world subjects and in some cases in the exquisiteness of the technique. However, after one has become accustomed to the foreign subjects and starts to seriously compare them with the work of domestic exhibitors one finds much from this side that is equally satisfying. In the prints of Eugene Henry, George Harting, Francis Libby, Dr. Chaffee, Holmes Mettee, O. C. Reiter, N. P. Moerdyke, Chas. K. Archer and W. E. Dassonville, we find work which we can set up beside that from across the water and feel that the score is even. Then too we find that Louis A. Goetz has developed a bromoil transfer technique that equals that of Bairstow, Judge or Fritz, which J. P. Edwards as a result of his European travels shows bits of Nurenberg, Rothenberg and Frankfort that match, though in a different medium, the beautiful work of Krupka.

Carbon is a process that seems to have lost its vogue and there are only a few examples. The best of these are three large prints by Alex Keighley, F. R. P. S. All three are dramatic in subject matter. "Past and Present" and "Three Boats" are particularly fine, containing a wealth of detail which while evident is not obtrusive and through remarkable composition does not detract from the center of interest. N. S. Wooldridge

PACHI EL PESCADOR

ORTIZ J. ECHAGUE
Madrid, Spain

Third San Francisco International Salon of Photography

also shows three carbon prints. "Potentiality", a picture of a railroad yard with its group of locomotives at rest is easily the best. It is a strong picture and the evident dormant power well justifies the title. It would have been better, I think, had the escaping steam been a trifle whiter. E. I. McPhail has one print, also a carbon.

There are four children's heads that are altogether delightful. "Richard" by Marcus Adams is rendered in a smooth brown toned bromide. Then there is one by W. E. Dassonville, one by Lionel Wood and one by Herbert Lambert. Each is different, but each holds your attention. The "Head of a Child" (Dassonville) is rendered in "Charcoal Black", a new medium which he has just perfected and placed upon the market. It is a delightful rendering of an evidently delightful subject. The first of his other two prints, "Portrait of Miss M.", is also portraiture at its best. The quality of the print in its rendering of the folds of the white dress and the richness of the dark shadows of the hair warrant the adjective "exquisite" more than any print I have even seen. The third child, by Lionel Wood, is well named "Curly". A curly headed youngster, beautifully pictured in a rather low key. This print and two others of Mr. Wood's five have a varnish coating which gives a rich depth to the shadows. "A Canal in Venice" and "Gandria" are excellent and with "Curly" make a trio so delightful as to make his other two rather disappointing. "Madeline" by Mr. Lambert is a beautiful thing in a straight bromide. It is so attractive that one forgets that the composition might have been better.

The portrait of "My Sister" by Franz Ziegler of Holland might have been included as one of the children's heads. It is a bromoil, not particularly good in technique, but in spite of that a pleasing thing. The young girl wears a lace headdress and the strong light reaching the face through the lace is quite charming.

Leonard Missone produces prints which are delightful pictures of pastoral scenes and remarkably excellent oils, subject however to the criticism of excessive hand work. The quality of his pictures is unique and quite individual. In subject matter he brings to mind Corot and Millet. His "Sur la Porte", an interesting genre, is easily the best of his six. Six prints by the way were accepted from only three other contributors, Bairstow, Libby and Karnitschnigg.

Mr. Mettee has shown a rather unforgiveable carelessness in not squarely mounting his "Industry". The lack of parallel between the obviously vertical lines and the print edge must surely have escaped the Jury. But in sending his beautiful snow picture "From the Hill Top" Mr. Mettee has redeemed himself. Its snow quality is quite exquisite and in fact it is the most beautiful high key print that I have ever seen. Compared to his one print of last year his group of four shows a development that requires favorable comment.

(To be concluded in the December Issue.)

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY 1900

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International Photography

"Beyond the mountain there lives a people." The world never was smaller than it is today. Telegraph, Telephone and Radio have eliminated separation since we may communicate with our fellows as though they were in the next room. The railroad, automobile and aeroplane have destroyed distance. And a general raising of mental standards making for community interests have obliterated cultural isolation.

Our brothers in England, in France, in Italy, Spain, Germany, Holland, Australia, Belgium, to the uttermost remoteness of South Africa are making pictures with the camera and building upon ambitions and aspirations just as we Americans. We long to see what they are doing and to know how they do it. And they feel the same toward us.

Camera Craft which is under the present readers eye is being read by some in every place where English is understood and in some very unexpected places, too.

So it is coming to pass that the great mantle of the fine arts is clothing photography also.

A Remarkable Article

One of the achievements of the present editorial policy, of which we feel very proud, is the cementing of ties, hitherto private and personal, (through individuals) of one photographic publication to another. Life is not a dog's existence save as we make it such. The good things of life are not bones to be snapped up and devoured while growling at every neighbor as a possible pilferer. Mr. A. H. Beardsley is responsible and to be credited with the issue of a beautiful and useful monthly; we strive to make ours likewise. Readers in all parts of the world are the friends of editors in the degree in which editors invite and reciprocate such friendship. It is a glorious and human emotion that sweetens the passing days. May editors share that friendship with one another and hold it for one another. After all we are working for the same thing.

Rereading Mr. Beardsley's article in proof we find the best of excuses for the mediocre quality of the article we have given him: He has said all, and said it beautifully. Nothing more or different is left for us, and if there were, we could not say it as well.

Market Place, St. Aignan

By Walter M. McIntyre

It was my good fortune towards the latter part of 1917 to become a member of Uncle Sam's personally conducted touring party to France, and having been an ardent Knight of the Lens for several years, it was a severe jolt to be told that all cameras of an unofficial nature were taboo.

I had taken along to camp the smallest practical camera I could find (a Vest Pocket Kodak with an Anastigmatic lens) but when we sailed for overseas I, very reluctantly, had to leave this behind. This was the predicament I found myself in when I reached the fair shores of France. Up to the signing of the Armistice I had to be contented with mental records of many charming scenes which I witnessed. One of these was the Market Place at St. Aignan. After strolling around this quaint old town one Sunday morning I became convinced that it was a veritable photographers' paradise, not only on account of its quaint and crooked streets, but also on account of its picturesque inhabitants and visitors. What took my fancy most were the picturesque old women with their neat black dresses and snow white starched caps. I would have given almost anything I had to have been able to take some pictures of such scenes as these but Uncle Sam still frowned on cameras.

After the Armistice was signed, I was lucky enough to become the owner of a No. 1 Folding Pocket Kodak fitted with a double lens. While this was not the model which I most desired I was nevertheless glad to get it. All restrictions were now removed and I was free to "shoot the world", photographically speaking. I was still thinking of St. Aignan when my opportunity came one day as we passed through the Valley of the Cher. We had about a couple of hours' stopover at a town called Noyers (this is a well known place to many of the A. E. F.). The village of St. Aignan is located just across the river Cher from Noyers, and a good hiker can make it over via the bridge in half an hour. I got there just as the Market Place was becoming deserted. Most of the old ladies had departed and I almost gave up in despair. However, just as I was about to leave, the two old ladies seen in the picture very conveniently and unconciously posed for me, and had I paid them to do it I don't think they could have done any better. After taking several more in a hurry I scrambled back to my "side door Pullman", and was soon hurrying westward at 15 miles an hour.

The unfortunate part of it was I could not get an opportunity to develop my exposures, and being unfamiliar with the quality of the French sunlight I was uncertain as to their outcome. I picked up an old Russian army ration tin and into this receptacle I placed my precious rolls. It was almost a year later that I had an opportunity to develop them and I was agreeably surprised to find many good negatives.

MARKET PLACE—ST. AIGNAN, FRANCE

WALTER M. McINTYRE
Oakland, California

C. F. RICHARDSON
Past Secretary P. A. of P. N. W.
Milwaukee, Oregon

J. A. ZINN, JR.
Past President P. A. of P. N. W.
Seattle, Washington

The Portland Convention

Promptly at nine on Monday morning of August twenty-fifth the doors of the Portland Auditorium were thrown open and a waiting crowd of delegates entered. The registration that followed kept Secretary Richardson busy and the pressure upon him and his group of assistants continued through the day. At 9:30 President Zinn formally opened the proceedings and after the singing of the National Anthems of the United States and Canada, introduced Honorable George L. Baker, Mayor of the City. This gentleman welcomed the visitors with a cordial address in the course of which he treated upon the history of photography and its influence on civilization and culture. President Zinn now introduced the guests of honor who briefly responded in turn, after which a special Committee was appointed to consider the consolidation of the two associations. The meeting adjourned to view the exhibits till noon when luncheon was served in the hall under the direction of Mrs. D. Perry Evans and Mrs. O. L. Markham. The indefatigable and cheerful labors of these two ladies kept a hungry delegation from starvation throughout the convention and on the closing day, each amateur caterer received a fitting gift from the grateful members.

Reconvening at 1:30 Mr. Sigismund Blumann gave a talk on the Business Side of Photography illustrated by graphs and charts.

Mr. Harry Main unloaded some California propaganda and with anecdote and serious remarks alternating, carried conviction to every hearer.

The address on "Pictorial Photography" by John Vanderpant was, as might be expected, interesting and instructive. This gentleman speaks fluently from a full mind and brightens his talk with quaint, natural humor.

During the morning the Judging Committees had actively canvassed the pictures and then combining into a jury of the whole, awarded the two Camera Craft silver cups. The awards were announced in our October issue and reproductions of the honored pictures have appeared, appear in this number, and shall be published in the future. They are outstanding exemplars of modern trend and taste. Their merit is not only inherent but representative of the achievement of better things by the professionals of our day.

It would be an incomplete report were we to omit mention of the Herculean labors of John Vanderpant, preceeding the opening, to get the hundreds of prints segregated and properly hung.

One of the surprises of the day was the appearance of Mr. Clarence Stearns, President of the National Association up to its last convention. Mr. Stearns was reported incapacitated by illness and unable to come. His reception must have convinced him of his welcome. Movie and panoramic pictures were taken of the entire assembly and each hour was filled by events that crowded one upon another.

In the evening the Portland members provided a lavish banquet to their guests. It was all that is meant when one speaks of a "feast of reason and a flow of wit", to which had been added the more material feast of a real cuisine.

Tuesday August twenty-sixth started the second day with a disappointment and a consolation. Mr. Frank Scott Clark was reported ill in a hospital and Mr. Louis Dworshak of Duluth, Minnesota had been invited to supply his place and in a way to duplicate the demonstrations Mr. Clark had given in Milwaukee. Mr. Dworshak is a temperamental artist and has a hypnotic delivery. He held his audience spellbound and gave them many new things to take away with them. A peculiar lens shade attracted especial notice. To the surprise and amusement of everybody, including the speaker, an impromptu mock wedding was staged. Miss Patricia Smith (Miss Portland) the beauty who had been chosen to represent her city, was to be the bride subject at the demonstration. Being fitly attired she simulated the bride in the little play. D. Perry Evans was the bridegroom, Sigismund Blumann was the broken hearted father, and that genial soul Mr. G. A. Lindsay, of Howland and Dewey was the synthetic minister, while Mr. O. L. Markham took the part of the best man. To the usual strains of Lohengrin the bridal party moved to the stage where the almost clergyman performed the not-quite ceremony. When the laughter and applause subsided all concerned reverted to their normal capacities and the demonstration followed.

Bridal costumes with their white draperies, silken sheen, laces, and flowers and bridal bouquets are most difficult subjects but Mr. Dworshak handled them in a masterly way. His words and their delivery added to the profit and entertainment.

Mr. Stearns having been prevailed upon to accept the place of Chairman pending the discussion of the amalgamation and next place for convention, a business meeting was called forthwith. The two bodies were merged by acclamation. Mr. V. V. Vinson, who had given his valuable experience in association work and his best energies to the committee work on this subject, addressed the delegates and seemingly convinced them all. The Pacific Northwest and the California Associations went out of existence and from the sacred ashes of both arose the Phoenix to be known as the Pacific International Photographic Association. It was at this season decided that the convention in 1925 should be in San Francisco and that succeeding conventions must alternate north and south of the boundary line of Oregon and California.

The chairman now delivered an address which voiced a message from the National Association, after which Mr. M. P. Kirkpatrick gave a demonstration of his methods of lighting groups. Kirkpatrick is always a personal favorite and his reception was, as usual, a warm one.

Mr. Harry Main entertained in his own way, for a half an hour and threw a little sunshine into the proceedings with anecdote and humor.

Ralph Young, of Lothers and Young, San Francisco, lectured on "Human Interest in Photographic Illustration". The Young smile is known

from New York to San Francisco and from Vancouver to Miami. It is expansive, contagious, and wholly exhilarating. To the surprise of those who have not met this gentleman in his serious moments, he presented a talk that was earnest, constructive, deeply shrewd, and educational.

In the evening the barge "Swan" made a trip along the river with a band and everything. There was dancing and moonlight and a good time was had by all.

Wednesday was an important day inasmuch as the judges of the prints announced their awards. There was the natural elation and probably equally natural disappointment but the sportsmanlike spirit was evident for no discontent was expressed. There never was a jury who succeeded in pleasing the losers, but in this case less dissatisfaction was shown than often appears.

Mr. Laurence B. Morton of San Francisco, spoke of Development of a Commercial Organization. There are few men in the commercial branch of photography who have devoted more time and thought to the problems of businesslike methods and systems. The Morton concern has grown by sheer inner force, the dynamic power of its President.

Mr. Paul De Gaston not being present, his place was ably filled by Mr. Roger Hostetler of Los Angeles. In a virile way this gentleman dealt with the abstract benefits the profession might derive from superior workmanship and careful attention to detail.

Miss Kathleen Dougan was also unable to attend on account of illness and in her place Mr. E. J. McCullagh of Berkeley, California treated exhaustively on composition, tonal values, and general artistic rendering. He took his illustrations from the walls and used actual prints to point his examples.

He was followed by Mr. Charles Bowen of Seattle, winner of one of the Camera Craft silver cups, who showed "What the Advertiser Must Have From the Photographer". Mr. Bowen after studying art in Europe decided to enter photography and has qualified as one of the foremost in his particular class.

Mr. Sigismund Blumann, limited to ten minutes, caused a laugh by beginning his talk on "Ethics" from his seat and continuing, so as to lose no time, while walking to the platform.

The half-hour devoted to Amateur Finishing by Mr. Albert Sneider of Portland was well spent. This subject is not always given its proper importance at conventions and the audience accorded Mr. Sneider a close attention.

That evening a special entertainment had been provided at the Baker Theatre. The program was varied and full of surprises, not the least of which was the Concert Band under direction of Professor Sandy.

Thursday came with a sense of regret. All felt this was the closing day and the new friendships formed at this foregathering bade fair to outlast the year that must intervene till the next convention. Men meet at such times in a spirit that is not like the passing of ships at night. The program began with the installation of new officers. Mr. Vinson, who had

officiated as Chief Installer for several years, being an elected officer himself, the duty of the ceremony was put upon Mr. Blumann. Each elected was installed with short remarks and fitting responses were made by the individuals.

Mr. Louis Dworshak again supplied the talk which was to have been given by Frank Scott Clark, and once more the temperamental artist held his hearers through the hour of the demonstration. A complement to this side of the profession was furnished by Mr. E. L. McDougall, Attorney of the Association. He covered the Jurisprudence of Photography, devoting himself especially, to the "Display of Photographs in Show Cases and Elsewhere".

Miss Ida M. Reed, General Manager of Camera Craft, who had been Secretary of California Association and now in the same office for the combined bodies, spoke briefly along practical lines that met, justly, with hearty approval.

There remained only the Farewell Addresses. These were seriously and sincerely delivered by Messrs. Stearns, Morton, Zinn, and Richardson, the men who made the Convention possible and successful. Just as the meeting was about to formally close the ubiquitous Blumann appeared with several mysterious packages and, in the name of a grateful Association of Fellow workers, presented appropriate gifts to Zinn, Vanderpant, and Richardson.

The Convention was over. The most successful socially and, financially, the best selling convention, ever held in the West.

In the afternoon a trip up the Columbia Highway was provided. Stops were made at the various falls and at the end of the ride a Salmon Bake awaited the hungry photographers.

The aftermath is a sweet memory with some regrets. The Portland members had financed the entertainment and had contributed without stint. Nothing was asked in the way of donations from dealers or merchants; everything had been paid for and with whole-hearted hospitality lavished on the guests. The astounding spirit of these fellows may be gathered from the facts that the places of business, portrait and commercial, were closed during the entire period of the convention, and in several instances the studios were stripped of furniture to supply the booths of exhibitors from remote parts. Was ever such a thing known before?

Regrets—that Miss Kathleen Dougan and Mr. Frank Scott Clark were too ill to be there and that Mr. Paul De Gaston had found it impossible to attend. And as a closing complaint that was voiced in stentorian tones by the trumpet of Might-Have-Been, J. A. Zinn Jr., neither sang that song nor danced that dance.

In the light of past events the convention remains as a highlight in the history of the Photographic Associations. Those who attended know that a more cohesive spirit, a more loyal adherence to the principles and ideals of a united profession, were never evinced at a like function. Those who took part are content and those who officiated are proud.

YE EDITOR RETAILETH NEWES OF YE PROFESSION AND IN QUAINT ITALICS TITILLATETH YE SPHYNX WITH HYS QUILL

Photo Finishers' Association

To those of our readers who are interested in the Photo Finishing branch of our profession, we wish to call attention to the snappy and valuable little publication DEVELOPMENTS, being sent broadcast monthly by the Photo Finishers' Association of America, without charge to any Photo Finisher who will make application to the Secretary of that Association, T. R. Phillips of Washington, Iowa.

This publication carries, besides Association news, a large department under the heading "SHOP TALK" which is full of items for increased efficiency in quality and quantity of print production. This exchange of ideas for plant equipment and management cannot but help anyone who is seriously engaged in Photo Finishing. It will pay you to get lined up with this live and fast growing organization.

Practical Success may be said to mean the ability to please the present generation. Remote Posterity never supported anyone. Why insist that your contemporaries support you when you strive to please only those who will live a hundred years hence.

You are not in business to compete for losses. Profits fairly earned are the bases of success.

Photo Finishers Convention

The Second Semi-Annual Convention of the Photo Finishers' Association of America is scheduled for Chicago, Hotel Morrison, next November 6 and 7. Until the country has been completely organized it is the intention of this organization to hold these meetings in widely separated cities every six months.

Present indications point to an attendance of well over one thousand Finishers at this second meeting. Since the start of the P. F. A. of A. eight months ago at Cedar Rapids, Iowa, a large number of states have established State Division of the national body and such cities as Denver, Los Angeles, San Diego, Long Beach, Minneapolis, Chicago, Cincinnati, Cleveland, Portland and Detroit have started local organizations.

At the Chicago Convention large poster displays will be shown covering advertising matter and sales methods as used by the largest Finishers throughout the country. A nationally known public accountant, who has been active in cost work for one of the Finishers organizations, will talk from slides showing the inside of profit and loss accounting for Finishers with others showing the average profit and loss of some twenty odd Finishing plants taken as examples of the average business.

One of the plant managers for what is considered one of the most progressive and modern Finishing business in the country will address the Convention on "Modern Methods of Building a Photo Finishing Business." Manufacturers will display the latest in modern equipment for the Finisher and extensive plans are being laid for entertainment.

Fare and one-half excursion rates are being allowed on all railroads but in order to secure this rate, Convention Certificates must be secured from the local agent, at the time original ticket is purchased. This certificate when validated by the proper Association officer at Chicago, allows the holder to purchase a half fare return ticket.

Photograph by FORD E. SAMUEL

Alameda Commercial Club Picnic

The Alameda Commercial Photographers' Club gave an outing Sunday, September Twenty-first to which the members of the San Francisco contingent of Photographers were invited. At nine-thirty about thirty-two or three expectant souls started by automobiles for a grove in the hills and after a drive of some ten to twelve miles along the Skyline Boulevard found the appointed spot, ready for all sorts of good times. There were games and prizes to gladden old and young—and among those present were represented every age from the patriarchal Editor of your magazine, to tiny tots who lisped in baby accents.

Prizes were presented to the winners of Quoits, Young Men's, Old Men's, Ladies', Children's and Three-Legged races. In the Egg Race Miss Ida M. Reed might have won an egg beater guaranteed to beat anything, had the egg not insisted on leaving the spoon. However, her consolation came in the Gate Prize award. The drawing gave this lady a pair of Opera Glasses. Mr. E. Wharton got a beautiful case containing a gold fountain pen and pencil. Little Dallas Cowles, niece of Miss Olga Dahl, received a Toy Automobile. The first of these was donated by Hirsch and Kaye; the second by Mr. George Derbfus, and the third by Rhodes-Jamison.

After a luncheon of salads, fried squabs, ham, stuffed eggs, and such other chef d'ouvres as may be found on the menus of Sherry in New York, the Stewart in San Francisco, the Benson in Portland, and Davenport in Seattle, other places in like degree, the games were resumed and more prizes were given. Owing to the fact that the writer was himself beguiled into an active part and lost his wind running a hundred yards, the record of what these prizes were and who won them was not recorded. Anyway, since he got no prize at all he is sore and refuses to give publicity to the affair. However, once more, the good time has softened that resolution.

Making a real picture is Art. You may use a brush, a pencil, a chisel and mallet, or a camera. The measure of merit is in the picture not the tools.

On Friday evening, September 12th, about 50 photographers and employees met at Chas. Beal's Studio to meet President Clarence Stearns, of the Photographers' Association of America.

Mr. Tony Babb acted as Chairman, after which we had an address by President Clarence Stearns, and a short address by Mr. Harry Baldwin, of Fort Dodge, Iowa.

Owing to the large representation of photographers present it was decided to form a club, of which G. Edwin Williams was elected Temporary President, and Roger H. Hostetler Temporary Secretary.

The following business was then transacted:

Motion was made and carried that the club consist of photographers and employees.

Motion was made and carried that stock houses and salesmen be admitted to membership.

Motion was made and carried that dues be $2.00 until January 1st.

President Williams appointed the following committee to arrange for the next meeting to take place at the Murillo Studio on September 19th: Stiles, Autrey, Stockton, Martell and Beals.

The cuckoo lays its eggs in the ready-made nests of other birds. Some there be who seem to think the only business to be gotten is that which another has. Wrong. Create your own, and you are most likely to hold it and see it grow.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

When Are Plates Fixed?

It is commonly believed that for the proper fixation of a plate it is necessary to take the precaution of leaving it in the fixing bath for as long again as is required for all traces of the white emulsion to disappear. In the following paper are described experiments made with the aid of the sulphide test for the fixation of plates, which was the subject of a recent communication. The test consists in detecting in the emulsion coating of photographic prints minute traces of silver halide salt by the formation of the strongly colored colloidal sulphide of silver by application of an alkaline sulphide. The sulphide test shows that this is incorrect.

In the study which is the subject of the present note we have used the sulphide test for the purpose of answering the following questions:—

(1) Does the disappearance of the white emulsion from a plate immersed in a fresh fixing bath actually correspond to the total removal of the silver halide salt which can be detected by an alkaline sulphide, or is it necessary to fix for a longer time?

(2) Can the addition to the fixing bath of increasing quantities of silver bromide so affect the fixing that on subsequent testing with sulphide a discoloration is produced, due to insoluble silver salt which cannot be removed by washing with water?

(3) Should the fixing bath be discarded as soon as the well-washed negatives show a slight yellowish-brown discoloration on testing with sulphide, and does this indication serve for ascertaining the maximum number of negatives or prints which can be fixed in a given quantity of fixing bath?

In order to answer the first of these questions, we fixed in a fresh 20 per cent. solution of hypo a number of dry 13x18 cm. plates (each cut in two), using 100 c.c.s. of bath for each 13x18 cm. plate. The first half of the plate was withdrawn from the bath as soon as it had cleared and was washed for 3 hours in running water. The second half was left in the fixing bath for twice as long, and was likewise washed for the same time as the first. The two halves were then treated with a 5 per cent. solution of sodium sulphide, again washed, dried and examined side by side against a white ground by comparison with a clear gelatine-coated sheet of glass. The two halves were found to be absolutely free from color. The tests were repeated several times with the same results, showing the absence of traces of silver halide salts in both halves of the plate. Therefore, it is plain that as soon as a plate has completely cleared in the fixing bath it may be considered as sufficiently fixed, and it is, therefore, useless to continue the fixing longer.

The preceding tests were repeated, but with the difference that the plates were fixed in a 20 per cent. solution of hypo containing increasing quantities, from 5 gms. to 60 gms. per litre of silver bromide, the content of 60 gms. corresponding to a bath in 1 litre of which 120 13x18 cm. plates have been fixed.

So long as the quantity of silver bromide did not exceed 20 gms. per litre no sign of discoloration of the film by the sulphide solution was observed. As soon as this proportion was exceeded, a yellowish-brown coloration appeared after sulphiding, but this coloration was the same in both halves of the plate, that is to say, in the half which had been fixed only until the white emulsion disappeared and the half which had been fixed for double this time. The coloration increases in depth, whilst still remaining the same in the two halves, as a greater quantity of silver bromide is present in the fixing bath.

The following are the respective times required for fixing in solutions containing increasing quantities of silver bromide, using 100 c.c.s. of 20 per cent. hypo solution at a temperature of 65 deg. F. for a 13x18 cm. plate.

Test No.	Silver bromide gms. per litre.	Time of fixing (for emulsion to disappear).
1	0	4 mins.
3	5	6 mins.
4	10	7 mins.
5	20	9 mins.
6	40	15 mins.
7	60	30 mins.

When several plates are treated in the same solution the depth of coloration which is observed after sulphiding varies a little from one plate to another, although the quantity of silver bromide in the fixing bath remains practically the same. The variations are due chiefly to differences in the thickness of the film, these being rendered visible by treatment with the sulphide.

The tests were made both with dry plates and with plates which had been previously wetted. The results were the same in both series.

By adding sodium bisulphite to the hypo solution the time of fixing is somewhat increased, but the action of the alkaline sulphide is not appreciably different from that which is produced without bisulphite in the bath.

We have ascertained that the silver salt, the presence of which in the film is shown by sulphide, can always be removed by double fixation. It is sufficient to treat the plate, on removal from the fixing bath, in a fresh 20 per cent. bath of hypo for 5 minutes. A plate treated in this way and washed shows no brown coloration on treatment with sulphide.

If it is attempted to remove the insoluble silver salt by a hypo eliminator, such as neutral ammonium persulphate, the result is simply a partial decomposition of this silver salt, and the coloration afterwards obtained with sulphide, although appreciably less, is not entirely absent.

The preceding tests show that the brown coloration produced on fixed plates with sulphide begins to be perceptible as soon as the fixing bath contains bromide of silver in greater proportion than 2 per cent. A hypo bath containing this or a greater proportion of silver bromide cannot remove the insoluble silver salt from emulsion films, but treatment in a second and fresh fixing bath achieves this result.

Inasmuch as the presence of this insoluble silver salt may be a cause of change in negatives or prints, it appears advisable not to allow the fixing bath to be employed beyond this limit of concentration of silver bromide. In the case of 13x18 cm. plates containing from 0.4 gm. to 0.5 gm. of silver bromide, it may be laid down that it is well not to fix more than five or six such plates in 100 c.c.s. of 20 per cent. hypo solution if one wishes to be certain that every trace of the insoluble silver salt will be removed from the emulsion film.

A. and L. Lumiere.
A. Seyewetz.

—In British Journal of Photography.

The Amateur and His Troubles

Conducted by Sigismund Blumann

Some Excellent Uses for Floor Wax

By A. H. Goud

Floor wax is a very useful article, a fact not known to a majority of photographers. When you have a print or enlargement which shows streaks of alum, (caused by a worn-out fixing bath), when viewed at a certain angle, take a tuft of cotton, rub it over the cake of wax till a quantity is accumulated, and spread it over the whole surface of the print. Allow two or three minutes to dry, and polish off briskly with a clean wad of cotton. The result will look like an entirely different print, and will have much more depth than before, and a glossy surface, if the print is on semi-matte paper.

I have used this method quite frequently, to give brilliancy to my enlargements, and recently discovered another effect, which is very interesting. Having some enlargements on a semi-matte bromide paper, I decided to wax them. After I had applied the wax, and was starting to polish off the print, I noticed that the wax had dried so evenly that it could only be seen by careful scrutiny under different angles of light, and the general effect was of a very smooth matte surface, far superior to any paper of the sort made, as it had real depth.

Broadcasting Photographic Instruction

In England they do things rather thoroughly in the photographic line. On July thirtieth, Doctor Glover broadcasted from Manchester a talk on "Advice to Beginners" and whatever good he may have done, and what greater advances may have been achieved through the method of disseminating knowledge in the particular way, seems to have been ignored by our bright and newsy contemporary "The New Photographer." It would seem that Dr. Glover spoke for the best equipment and per se the most costly. This is objected to by the publication named as discouraging and misleading. The editorial contains so much that is true and wise, albeit applicable to other times, and in an abstract way, that we reprint excerpts herewith.

"Will anything eradicate from the mind of the Man-in-the-street the idea that good photographs and expensive apparatus run together? It is not our intention to dissuade any amateur from buying the best he can afford, but rather to persuade anyone who reads these lines to refrain from hanging back because he has only a cheap camera. Learn to make the best use of what you have and you will be amazed at what can be done with it."

How true this is may be judged from the epic of the late Rabe's life. Afflicted with a heart trouble that finally ended his career, he went on his modest way, tramped where pictures were and had the eyes to see them. Sought beauty and knew it on sight, and, with a cheap, old, almost obsolete box that was shabby and quite battered, captured Nature's finest moments, translated Her divinest moods to black and white, and never for a second missed the elaborate outfits of his fellows. The willow bough and the bent pin caught fish for him where the gaudy steel rod and fly failed to land. But then, again, what might dear Rabe not have achieved with the best, the newest, though it had been the most expensive. It is the man who makes the picture. If he can do it with an old box and a piece of brown glass, he can do it with the finest lens and the most modern equipment. There is, to many of us, an aesthetic pleasure in owning what is bright, new, and costly.

A New Objection to Films
By Larrence Page

Now and then the photographic magazines discuss the relative merits of plates and films. There are points on each side of the question, strong or weak, according to the users' predilection, not to say prejudice.

As I see it there is but one point of any considerable importance in favor of films: they are light. On a hike when a fellow must "go light," this one point outweighs all others, and films are carried.

When I do use films, I prefer flat films in the form of film packs. They are in flat packages and consequently take less room. For the same size of picture, the camera is much lighter and can be used with plates when there is no need to "go light."

But recently I was struck with a considerable disadvantage of film negatives, struck hard, as will appear a little further on. I was doing a little enlarging using a slow chloride paper and a cherished film negative that was quite dense and somewhat stained,—a slow combination. The exposure amounted to several minutes. After a few experiments with narrow strips, to find the correct time, two or three enlargements were made. On taking out the negative I found it wrinkled all over, like a piece of "crepe" paper. Fortunately, the gelatine did not separate from the celluloid. So I concluded that film negatives are not so good for enlarging on slow paper, as glass ones. But this can be overcome by making the exposure in "relays" of 30 seconds or a minute each, with intervals between for cooling off, turning the light off during the intervals. This method gives ample time for meditation.

The enlarger was a home-made one, using a 200-Watt lamp in a parallex reflector. Poor ventilation of the lamphouse, no doubt, made matters worse. A smaller lamp would result in a lower temperature though requiring a longer time, for there would be more time for the heat to dissipate.

After all is said, plates are better whenever their weight is not prohibitive.

Editorial Note:

Mr. Page has encountered a difficulty which we think is unjustly blamed upon films. While a plate cannot curl and become fluted, as described, the emulsion on it has been known to frill. This is generally due to faulty manipulation or careless in the matter of temperature as the writer confesses.

A SIMPLE NEGATIVE FILE
By F. L. Rogers

This is a very simple and inexpensive system which any amateur can use for a large or small number of film negatives, to have them instantly available in any classification desired:

Obtain an unused book of several hundred pages—one may find one for a few cents at any second-hand book shop. Put one negative between each two pages, numbering it to correspond; the numbering will, of course, be all even or odd numbers, accordingly as the right-hand or left-hand page is used as index.

Now let us suppose that a large number of films are so filed away. Make a descriptive card, or preferably a print, from each film negative, and arrange these according to alphabetical order, subject or cross-file. Then the number quickly locates the desired film.

Notes and Comment

Horace W. Davis on the Wing

The President of the Ansco Company is making a swing around the country to familiarize himself with trade conditions pertaining to the photographic industry and to renew contact with the local managers in the various states. His stay in these parts was all too brief, for the taste we had of his personality makes us wish he had stayed a month.

In discussing the professional as well as the amateur field, Mr. Davis showed by what ideals and intense enthusiasm men rise to high positions. We were impressed by his personal interest in photography and photographers: An interest quite apart from any commercial aspect. A peculiarly pointed statement bearing on all business will bear repeating, especially as coming from a man so high in the commercial world.

"Ansco cannot hope to succeed except as it can excell. It cannot prosper unless the consumer thrives. So we feel we have worked and are working toward perfection and shall always hold ourselves ready to contribute in any way that looks feasible to the success of the photographer."

Photography and Architecture

The following notice from the September Bulletin of the Metropolitan Museum of Art of New Yorw is pregnant with a larger meaning that the casual reader may get. It bespeaks the potent influence of the Camera toward rendering history tangible and vivid. Science becomes permanently and continuously demonstrated, Art is numerously duplicated for the general public to see and learn from seeing, and, each generation can get from its preceding one such accurate detail, such minutal, as may only be gotten through the eyes. It might almost be said that as a disseminator of knowledge photography comes second, only, to language.

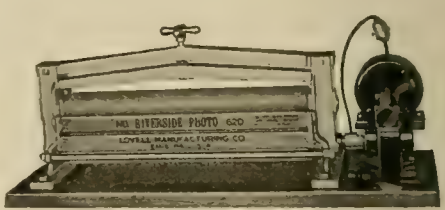
Exhibition of American Architectural Photographs. A comprehensive survey of the evolution of American architecture during the seventeenth, eighteenth, and early nineteenth centuries will be shown in an exhibition of photographs in Class Room B, beginning October 15.

This exhibition has been assembled by the Library on a scale befitting its relationship to the American Wing, which will be opened in the near future. Over two hundred photographs, many of them enlarged to 22x32 inches, have been selected as best representing the characteristics of what is generally termed Colonial architecture. The photographs will be labeled, and, where it is known, the name of the architect will appear, giving an opportunity to pay tribute to certain personalities representative of the amateur, the carpenter, and the professional architect, who have left us an architecture of which we may justly be proud, and from which much may be learned.

The photographers comprising this exhibition form part of our Library collection of Colonial material, to which the public is given free access for research.

Squeege Photograph Wringer

A new wringer designed for quick photographic service has been developed and is being marketed by the Lovell Manufacturing Company of Erie, Pa. The new wringer does the work in one-fifth the time formerly required.



The machine operates easily, does not buckle prints and gives a perfect gloss surface contact with very little pressure on the emulsion. It completely eliminates free water from both prints and tins, and assures uniform drying, preventing creas-

es caused by uneven drying; and likewise, shortens the drying time in the print dryer.

The rubber composition rolls are revolved by a ⅛ Hp. 110 volt, D. C. or A. C. Westinghouse motor which can be plugged into the ordinary lighting circuit. Excessive vibration and buckling of prints are eliminated by the continuous drive which is coupled to the motor through a universal joint. The single central pressure screw located at the top of the wringer gives uniform pressure along the entire length of the roll. The pressure on the rolls may be released from contact when not in use.

Mr. John Zumbrun Calls

Once in a while we are given the benefit of a visit by a photographer from the remote corners of this good earth. Recently, Mr. Zumbrun arriving from Peking, China, stopped over in this city long enough to give us a half hour before moving on to New York. This gentleman conducts a general photographic business among other kindred articles of merchandise, views of the Palaces, Temples, and Pagodas, and of the remote stretches of the great wall.

It is astounding what beauty spots may be found in a country that is to our mind sordid and overcrowded.

We regret that the time is too short for Mr. Zumbrun to tell us some of his experiences, but we have hopes of getting from him, at some later date, an illustrated article which will give our readers an idea of what can be done by a live and enterprising photographer in a generally estimated unpromising place.

Instruction In Photography

We received a prospectus from the Brooklyn Institute of Arts and Sciences, Academy of Music Building, Brooklyn, New York, announcing that its Photographic Department had again secured Mr. William H. Zerbe to conduct its coures. As this gentleman officiated in the same capacity for the past nine years and in the course of that time has made proficient pictorialists of crude amateurs, this will be welcome news. We hope all interested in what the Institute offers will write for a prospectus.

About Robert B. Marsh

Many who claim him as, and as many who heartily are his friend, will be glad to learn that "Bob" Marsh may soon be found at Schwabacher Frey Stationery Company's new store, to be opened at 733 Market Street, San Francisco. The management proposes adding a complete Photographic Department under the general supervision of Mr. Marsh.

The thousands who have dealt with that genial soul will hasten to renew their business relations with him. It is hoped that even the casual patron may recollect the pleasantness of every transaction with Marsh and Company, formerly 712 Market Street, and be induced thereby to find the new stand and the old reliability.

University of California Extension Division

Amateur photographers are expressing keen interest in the new courses in photography to be given by Ralph Stuart Browne of Berkeley. Instruction in this subject has not been given for over a year by the Extension Division in view of the fact that much of the equipment used was destroyed in the Berkeley fire. Lecture and laboratory classes in this subject are to be given as usual, the lecture class to be given on Tuesdays beginning September 2nd at 7:30 p. m., and the laboratory class to be given Mondays beginning September 8th at 7:00 p. m. Both classes meet in room 263 Pacific Building, near Fourth and Market Streets, San Francisco.

Lafayette National Park

A little pamphlet comes to hand which impresses most favorably toward the National Parks Association at Washington, D. C. The impression is new and startling. Not only does this government of ours give us large areas of nature's beauty, saved from private ownership and exploitation, but presents us, on request, with guide-books, highly illustrated, as well as maps and interesting literature. It is to be hoped the citizens avail themselves of what their own country offers before going abroad to see lesser sights at greater cost of time, money, and comfort. America first, by all means.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

It is interesting also to note the revival of interest in various parts of the country, in the formation of local photographic clubs. Following close on the heels of the club organized at Los Angeles, at which Past-President Stearns was on hand to assist, comes word from the New England States that a club has been organized at Worcester, Mass., with 100% of the local photographers as Charter members. And now we learn that a movement is on foot to organize a local club in Central Wisconsin.

The monthly meetings of these little organizations are the finest way in the World to create and sustain interest and enthusiasm in local affairs, while the discussions of professional problems, comparison of workmanship and methods, the development of vocational friendship all tend to materially improve the status of photography in that section. There is another feature which is highly important and that is the moral prestige gained in the eyes of other business men. Practically all trades and professions now have their local association which convinces the public that there is sufficient unity of mind, unity of spirit and unity of purpose to function harmoniously and work for their general welfare. When the local photographers get together and organize, they raise themselves in the estimation of their towns-people and that's what counts.

October has certainly been a busy month for the Traveling Exhibits. With only five on the road and a score of requests for them, there must of necessity have been a few disappointments. Seems as though everybody was going to hold an exhibition just before they settled down to their Christmas rush so that the last two months of the year, exhibits will "go begging". However, that will give us a nice opportunity to call them in, return the pictures to the owners and prepare the new Exhibits from the Milwaukee Salon for the coming season, the Spring of 1925.

During the past month, the Julius C. Strauss Memorial Fund has had quite a few contributors, to wit:

Julian H. Stein, Ryland W. Phillips, Ben C. Golling, W. L. Koehne, J. Will Kellmer, Abel's Photographic Weekly, Eugene Schwarzwald, Wm. Shewell Ellis, Jos. D. Toloff, Alfred Clements, Wm. Schiller, J. B. Schreiver, T. Kajiwara, O. C. Conkling, Ed. Blum, Jr., Belle Johnson, Camera Craft, Eugene Hutchinson, W. S. Lively, Mabel Sykes, Henry Hammer, G. A. Cramer, and W. H. Towles.

As mentioned before, the proceeds of this contribution will be assigned to the purchase of a suitable memorial to be placed at the School of Photography of the P. A. of A. at Winona Lake, Ind., and to take the form of necessary equipment of a permanent nature as may be deemed most fitting by the Trustees. Donations are purely voluntary and may be forwarded to the General Secretary, P. A. of A., checks being made payable to the Association, anotated Julius C. Strauss Fund.

Through the courtesy of the publishers of Association News, Abel's Photographic Weekly, The Bulletin of Photography and CAMERA CRAFT we are able to offer a subscription to their respective magazines for the balance of 1924 and the whole of 1925 to all Active members of the Association who choose to pay their 1925 dues at this time of the year. This is an admirable opportunity to secure the additional numbers by getting the matter off your mind TODAY. The ten dollars does not seem as big just now, as it will about January 1st, when there are a stack of bills to meet, so why not let's have it. 'Atta boy!

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

Pictorial Photographers of America

The last week in September saw a collection of forty-three prints from the hands of representative California workers on the walls of the Art Center, to remain as the October exhibit. They are a fine lot and make a most creditable showing. Eight individuals are to be credited for the collection.

It is aimed to keep an exhibition of photographs at all times, usually by one member at a time. Last year's list is outstanding — Laura Gilpin, E. P. Henry, Henry Hoyt Moore, Paul Onterbridge, and Ira W. Martin. This year started with an exhibition by Joseph Petrovelli, and Clark Blickensderfer and Mr. M. R. Jones to come.

During November the officers and three executive officers are to be elected. It is to be hoped that if new men assume the responsibilities, they may carry on the good work of their predecessors and bring something more, something even better of their own.

Newark Camera Club

During October the hanging of William Shewell Ellis' prints attracted the attention and admiration that one expects for the work of this splendid artist. On the evening of the twentieth, Mr. J. Leslie gave a demonstration of the Agfa Color Plates. Actual exposures and development were conducted before the audience.

The California Camera Club

The Annual One Man Show has been postponed indefinitely to permit of more complete planning and allow for the completion of the club-rooms. From October 15th to November 15th the walls will be devoted to the work of Muray, and from the later date to the end of the month Clark Blickensderfer's prints are to gladden the eyes of the members.

In the meanwhile the usual social activities of this live group go on. The Reiter prints shared the walls with those of Miss Christie Tyler and in the persons of this lady and the President of the Pittsburgh Salon group brought east and west together.

New York Art Center

This ultra artistic group, an alliance of the greater votaries of all the graphic Arts, announced their fourth Annual Exhibition. The showing was made by collaboration of the Society of Illustrators, American Institute of Graphic Arts, Art Alliance of America, Art Directors Club, New York Society of Craftsmen, The Stowaways and the Pictorial Photographers of America. The show lasted throughout the month and it is not difficult to imagine its scope, its quality, and its cultural value.

It is interesting to learn that William Shewell Ellis, the eminent portraitist, is also a pictorialist of note, having captured many Salon honors and not a few prizes in competitions, the Eastman Kodak five hundred dollar award several times, and is still an enthusiastic lover of the picture as such. He began as an Amateur and has lost none of the fire of the dilletanti.

Fort Dearborn Camera Club

The Fort Dearborn Camera Club which was organized several years ago in Chicago, Ill., for and by amateur photograpers, found it necessary this fall to go into larger quarters, and is now located at 136 W. Lake Street, Chicago. On October tenth, at eight o'clock, the Club gave a reception and open house, with displays of the work of members of the organization. In its new quarters the Club extends a cordial invitation to men and women interested in improving their technique in photography, to visit the club-rooms.

There are under way plans for a course of lectures to be given by an authority in photography, covering all branches of photographic technique, print criticism, developing, composition, etc., which will be of great value to the amateur.

Ralph Hawkins, 1650 E. 63rd St., Chicago, is President of the Club, and further particulars concerning the organization may be secured from him.

International Photographic Association

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

E. A. Mueller, Special Album Director, P. O. Box 20, Newark, N. J.

John Bieseman, Director Post Card Albums, Hemlock, Ohio.

Lovic Meredith, Director Stereoscopic Division, Rupperttown, Tenn.

ALBUM DIRECTORS

Eastern Division, No. 1: Under the direction of Franklin Gray McIntosh, Album Director, 1520 Liberty St., Franklin, Pa., Henley H. Hall, Secretary, 511 West 32nd St., Richmond, Va., comprises New York, New Jersey, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Delaware, Virginia, West Virginia, Kentucky, Indiana, Ohio and Michigan.

Western Division, No. 2: Under the direction of Allen Young, Room 413 Claus Spreckels Bldg., San Francisco, Calif., comprises California, Oregon, Washington, Idaho, Nevada, Utah, Montana, Wyoming and Colorado.

Southern Division, No. 3: Under the direction of Frank Reeves, Stamford, Texas, comprises Florida, Georgia, North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Louisiana, Arkansas, Oklahoma, Texas, New Mexico, and Arizona.

Northern Division, No. 4: Under the direction of Leonard A. Williams, 622 Second Avenue, St. Cloud, Minn. This division comprises Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota.

NEW MEMBERS

5372—Quirino Y. Montaner, P. O. Box 218, Cebu, P. I.
Postal cards and cabinet, of studio portraits; for the same. Class 1.

5373—Marvin C. Munsell, 336 N. 18th St., Kansas City, Kansas.
Class 2.

5374—A. W. Clark, Carnation, Wash.
3¼x4¼ and 5x7 enlargements of bridges, river scenes, mountains, and a few animal studies, etc.; for the same, also studies of young children. Class 1.

RENEWALS

4979—Herbert F. Hiecke, 4511 So. Dearborn St., Chicago, Ill.
2¼x3¼, 3¼x4¼, 3¼x5½ of landscapes, historical subjects, statues and anything of interest; for the same. Class 1.

5304—Cyrus R. Phelps, Rand Studio, Brockton, Mass.
2¼x3¼, 3¼x5½ most common size in my collection, others accepted. Nature studies; for the same or anything of interest. Class 1.

5366—W. L. Randall, Box 451, Rosetown, Sask., Canada.
4x6 and 5x7 of portraits and views; for anything good, preferably art or soft focus subjects. Class 1.

Henley H. Hall, Secretary of the Eastern Division No. 1, is a real worker and has been getting together an album for that division. All those members who have not as yet sent him prints should do so at once as the albums have proven valuable to the recipients in the past and will surely prove more so when such a worker as Mr. Hall goes after good prints and lots of them, and puts them into an album for your benefit. Other Album Directors will do well to make early application for an exchange with Mr. Hall.

Albums are being sent into foreign countries from Division No. 2 and this will result in some interesting work from those countries.

The exchanging of albums between divisions will allow all members the privilege of seeing many interesting photographs and show them what others are doing.

It is a privilege to belong to this Association.

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CAMERA CRAFT

A Photographic Monthly

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Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24th, 1912, for October 1st, 1924, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of the "Camera Craft" and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24th, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

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(Signed) I. M. REED, Business Manager.

Sworn and subscribed before me this thirtieth day of September, 1924.

E. J. CASEY, Notary Public

In and for the City and County of San Francisco, State of California. My commission expires August 18th, 1927.

ON THE ROCKS

Eighth Annual Salon
LOS ANGELES PICTORIALISTS

F. J. MORTIMER
London, England

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

SIGISMUND BLUMANN, EDITOR

CLAUS SPRECKELS BLDG., SAN FRANCISCO, CALIFORNIA

VOL. XXXI DECEMBER, 1924 No. 12

CASA PALOS VERDES

E. M. PRATT,
Hollywood, California

Eighth Annual Salon: Pictorialists of Los Angeles

A Review of the Eighth Annual International Salon of Pictorial Photography

Held under the Auspices of the Camera Pictorialists of Los Angeles

By James N. Doolittle

To present a critical review of an art exhibit is but to enlarge upon the functions of the jury of selection without the privilege of exercising any of its powers. Presumably, the accepted offering of a group of contributors is of practically one quality, based upon the standards established by the best of the contributed material.

EL VIEJO ARRABELERO — J. ORTIZ ESCHAGUE, Madrid, Spain

Eighth Annual Salon: Pictorialists of Los Angeles

There is usually no choice, therefore, but to skim, more or less lightly through the catalogue, arrange one's stock of commendatory phrases in such manner as to include the names of each artist represented, deliver a a figurative pat upon the shoulder, or deal adversely, according as the nature of this work seizes one's fancy. This, at least, is the usual course, but time, space, and disposition deny this procedure in the present instance.

This relieves the writer of a tremendous responsibility, conserves space and permits a departure from the somewhat conventional treatment of a subject of this nature.

RECUEILLEMENT — H. SCHNEEBERGER, Paris, France

Eighth Annual Salon: Pictorialists of Los Angeles

It is left to me, therefore, in the flush of yearly enthusiasm to deal generally and to consider the Eighth International in its splendid entity, before I have time or opportunity to temper my judgment with deeper analysis, and with the consequent danger of entering into the dullness of detailed observations.

The fruits of a number of years of unremitting labor, of a fervid enthusiasm, and of a bond of fellowship in the firm determination to bring to the Pacific Southwest an International Photographic Salon which would equal or surpass any similar endeavor in other parts of the world, seems at last to have fallen to the Camera Pictorialists of Los Angeles.

Reference to catalogues of the last few years will disclose the fact that only a surprisingly small group of pictorialists are working to place their art upon a basis of popular appreciation and understanding, but that they are compelled to distribute their necessarily limited output.

It is with a feeling akin to exaltation that we have been successful in courting the participation of nearly every prominent pictorialist of the day as well as to have brought forth a highly gratifying list of new workers the product of whose skill has stood the test of comparison with pictures internationally known.

The vision which has inspired certain leading art centers to accept Pictorial Photography on a par with the older arts will, of course, ultimately result in the development of a body of photographers great enough to respond to the call of every community where art may be invited.

It was circumstance and fortune that brought O. C. Reiter and Forman Hanna to Los Angeles in time to collaborate with Martin Justice, N. P. Moerdyke and Fred Archer in the judgment of a larger group of prints than has ever been gathered for exhibition on the Pacific Coast and it is a high tribute to their critical faculties that they were able to accept a high percentage of the contributions without lowering the standards created by the best of accepted material.

A principle has been informally accepted by the Camera Pictorialists, the effect of which has been to enhance the quality of their exhibitions, in keeping the number of accepted prints within a certain limit. Not, as has been the general impression, to a definite number of prints, but regulated by the capacity of the gallery in which they are shown. This has **not** the effect of denying representation to an increasing list of participants but to guarantee to the exhibitor a better personal representation by the enhanced appearance of his work upon the walls of our galleries.

Our first step in effecting this plan was to request that exhibitors submit but six prints; the next was to determine the method of hanging so that the maximum of prints could be advantageously displayed. **This is in justice to the exhibitor,** for while the ample galleries placed at our disposal would probably accomodate three times the number of prints which are customarily shown, it has been properly observed that a greater number of prints invited but little individual attention. After all, the exhibitor is the host: The public his guest, and he who would entertain should exercise restraint. The spirit of competition presents no small influence in the lives of most of us so it is felt that serious reflection will disclose a certain satisfaction in realizing that representation in an important Salon is becoming a little more difficult of attainment. Pictorialists will stop—take stock, as it were—and endeavor to higher attainments in the knowledge that their work will be more closely judged and, accepted, find its place beside the best that is being shown.

While success of any artistic endeavor depends upon the strength of its emotional appeal, and subject matter seems the paramount consideration it is interesting to note the increasing tendency towards the employment of the various pigment processes in this year's show.

OLD COTTAGE — BETTI MAUNTNER, Vienna, Austria

Eighth Annual Salon: Pictorialists of Los Angeles

American workers offer one-third of their contributions in these media while among foreign artists the controlled processes are represented in the majority of their prints. "Gas light printing" seems to be rapidly declining towards the lost arts, for technically the lowest quality of work is represented in bromide printing. But here, in fairness I must admit also that some of the finest work in the show is in this process. No jury will ever discriminate against a print because of its medium, but there is an irresistable appeal in a bromoil, gum, platinum, or any of the pigment transfer processes that compels attention and where purely objective appeal is striven for the humbler gaslight print is apt to suffer in the comparison.

Then, too often, bromide enlarging is the resort of the novice who has not first mastered at least the rudiments of negative making. The flexibility of emulsions is his refuge but is seldom substantial enough to shelter his ignorance or neglect of first principles.

Sixteen foreign countries are represented by eighty-six exhibitors, while the American group finds representation from twenty-one States with one hundred and twenty-one exhibitors, of which forty-six are from California.

Strangely, from Southern California only four artists are represented who are identified with the motion picture industry and none of the subjects presented by them have drawn upon the atmosphere of the studios!

It seems fitting that an explanation be made in passing to those who had less than their full quota accepted by the jury. Rejection in most cases did not imply mediocrity; it did not indicate that the rejected print was below the standard of acceptance but, since curtailment was necessary, it was felt the loss of one or two prints would not impair the quality of his individual representation.

The museum of History, Sciences and Art, which so splendidly fostered the interests of the Camera Pictorialists and Pictorial Photography, is beginning the construction of a larger gallery in which to accomodate future exhibitions as well as to display a permanent art exhibit. It is significant of the esteem in which photography is held that a fund is provided by them for the acquisition of prints for a permanent exhibition. This is a real service.

As one privileged to see and to contribute to the yearly exhibitions of this Los Angeles contingent of pictorialists, I have been impressed and am again impressed by the disinterested, whole-hearted work done by those who shoulder the dull routine of unwrapping, placing before judges, hanging, taking down, rewrapping, and remailing to the makers of the mass of valuable material. There is no artistic interest, no recompense, no thanks to be gotten. It is just work. Yet these noble souls look at the show with enfervored eyes and gain a special enjoyment that seems to repay them. This wonderful thing and the fact that pretty much the same is happening in many places in this country and the world at large makes me willing to believe that there is more pleasure in giving than in receiving, for, the doers get a great deal more out of it in pleasure and exaltation than, in many cases, the persons for whom they do it. There is something to be paid to the men who give work and art and material in the form of prints, and something to be given to the men who bring about the collection of beautiful pictures. The public is the beneficiary, but the least grateful. There are some who feel they are doing a kindly act in attending, feeling that they have helped to make a crowd. But as the good work goes on, taste and understanding will come and then, and then!

Woman in Commercial Photography

By Olga Dahl

Of R. J. Waters and Company, San Francisco, California.

Illustrated by the Author

The time has come when nobody can deny to women the right to work side by side with men, at almost any of the lines of endeavor by which a living is to be earned. There was a period of doubt, and a period of scoffing but now the place is not a matter of sex but of ability. Women are voting, and still the country prospers. In fact, what doubt and hesitancy still exist are largely on the part of woman, herself. She seems in some instances to be reluctant to avail herself of the opportunities open to her. Sometimes this feeling is a lack of self-confidence, sometimes a survival of the false modesty of a bye-gone day.

In professional photography, where good taste, and tact are so important it would seem that the male should be at a positive disadvantage. And so it has proven, for women have risen to eminence in portraiture with less effort, smaller investment, in a shorter time. They have brought into the profession qualities within themselves that make for success. Do not think that I am trying to belittle the opposite sex. Granting the men all that is coming them in the particular callings to which they are best adapted, we are now dealing with something that, it seems to me, is right in a woman's sphere.

My experience being in Commercial Photography it behooves me to speak of what I know best, so what follows shall be confined to that branch. It would seem, though, that the broad principles dealt with apply to every branch.

The preconceived notion of a Commercial Photographer is of one who, getting an order to "take" a house, a show-window, an interior, or something of the sort, packs a hundred pounds of paraphernalia on his shoulders and rushes to the job; arriving there, that he does his work and rushes back. He is supposed to develop, print, deliver, and collect, to keep his own books and make deliveries. Some are so backward, but the modern, up-to-date establishment does not conduct its business that way. There are specialists for every detail of the work. Solicitors to get orders, Advertising experts, Operators, Dark-room Workers, and Printers, Book-keepers, and Collectors. Only the head of such an establishment is supposed to have qualified throughout. And, be it noted, there is nothing in all this that a woman cannot do, as a matter of truth, there is nothing that women are not doing. The automobile does the heavy carrying.

In taking pictures I have found it possible to be helpful to my customers. That taste in arrangement and sense of color which is a part of every woman's equipment, has not been denied me. In the dark-room an orderly nature and a neat method of working, as well as accuracy in compounding, have made my work a little neater and better, I like to believe. These are all feminine qualities.

We women are accused of lacking promptness, persistence, aggressiveness and enterprise. If that be so we had better start right now to change all that. But I do not accept that it is so, I know nothing was given me. I have had to fight my way on and up. Failures and discouragement, competition, losses have had to be encountered and conquered. I am not an unusual woman, but rather one of a type. We, of this type are winning our way by knowing what we can do and should do, and then doing it.

In layouts, printing, finishing and detail we are more exacting. We are prompter than men, for all that is believed to the contrary. We have an intuition that enables us to divine the proper approach in getting business: And we have the logic to close and land the job. When it comes to collections women are most successfully persuasive and can be as unflinchingly insistent as any men.

There is no boast in this. The object of this writing is to convince women that a congenial and profitable field is open to them, and to encourage them to reach out and take what is their due.

So much for generalities. Success of an article of a financial sort is to be achieved along specific lines. It pays to specialize. After mastering the details of the business as a whole, let the ambitious woman decide upon one thing that she proposes to do better than any other person is doing it, better, if possible, than it has ever been done before.

As an example of what is meant by this let me take the rather egotistical way of using our own establishment as an illustration. Our business is of a general and comprehensive nature, that is, we strive to specialize in every branch and do as nearly perfect work as is possible of whatever sort. But, cut glass being considered difficult we have taken particular pains to overcome difficulties and have adopted methods of our own to get results.

The beauty of precious glass is its luminosity and the distinctness, or as it is called, sharpness of the pattern. We use a screen of tracing cloth or ground glass against the window, place the articles on a glass shelf, thus forcing the light to permeate every part of the thing. This calls for precaution against overexposure and blocking up. When many articles are to be photographed at one time it would be advisable to follow the procedure of Mr. Filmer as told under head of "Photographing Car Parts" in the October issue of Camera Craft. The under lights would be the only ones to use with glass objects.

A problem that arises is the conflict of design on the far side with the nearer and this is met in most studios by opaquing and spraying on graphite. We find this kills the inherent beauty of the glass, giving a wooden appearance and destroying the delicate catch-lights, so we evolved a sort of cream made of tripoli powder and oil which we spread on the uncut or inner side of the farther part of the dish. The effect will strike the photographer who tries it as startlingly fine.

As a matter of general advice it may be permitted me to say that women need keep themselves informed on their business fully as much as men if not more so. Extraneous thinking and talking are apt to deflect the feminine mind from her vocation whereas men talk business in and out of shop hours. Read the photographic magazines. They are made for you. Not only the text but the advertising, and reason and deduct from what you read. Join an association devoted to your profession. Every line of endeavor is organized: Organized for a specific purpose and that is the betterment of business methods and conditions.

And if at any time you hear the Commercial branch of photography treated with indulgence or disdain, remember that just as much art may be put into a commercial photograph as in a portrait or a landscape. Your business and your profession shall be what you make it.

THE EARRING — JOHN HOWARD PAINE

New Westminster Salon of 1924

The New Westminster Salon of Pictorial Photography

By John Vanderpant

From a humble start some four years ago, the New Westminster Salon which is held under the auspices of the Royal Agricultural and Industrial Society in connection with the Annual Provincial Exposition of British Columbia, has grown by leaps and bounds and now ranks among the best. Beginning four years ago with a mere handful of prints, this year's entered prints numbered almost fourteen hundred and represented workers from twenty-three countries.

Some workers may not send their latest prints, which are generally used for older centers, but a good print, even if not quite new, remains a good print. If a picture loses interest, it is proof that true inspiration is lacking.

Walking through the well lighted rooms, one wondered at the remarkable fact that pictorialists from all over the world had co-operated to tell their message of beauty. One realized, in admiration, the tremendous efforts, the love of the craft, the desire to express what is seen as beautiful: and one appreciated and loved photography for the possibilities it holds for those who otherwise might not have the means of artistic expression. Certainly pictorial photography is doing great and good work for those who have the urge to create and those who appreciate photographic creation.

With over five hundred prints on the walls, it is almost impossible to mention individual names and so, though we shall praise some, it does not follow that those not mentioned are not worthy of it. There was noticeable a decided difference in the character expressed by different countries, and with exceptions to be allowed, I should take a chance at characterizing the British work as sound, the American clever, the Dutch solid, the Australian dainty, the Austrian refined, the Belgian with no character of its own, the French disappointing, the Russian and Polish rugged, the Japanese decorative, and again the American as clever—very clever at times. Some of it seems to be very much on the surface, as if the maker lacked the true artistic foundation.

The Silver Medal in the Portrait Section was awarded J. Howard Paine of Washington, D. C., for his print, "The Earrings". This worker, who last year was awarded the bronze, makes simple portraits but fine in composition and of exceptionally good modelling and texture. Simple, also, yet broad in concept and full of feeling, was the portrait "Dr. Otto Schapp" by Swan Watson of Edinburgh, who was given first award. Bronze medals in this class went to Lionel Wood, F. R. P. S., Brighton, England, for his clever, characteristic, "The Sweep"; to Madam d'Ora of Vienna, Austria, for a charming woman portrait and to Mrs. H. Jasinska, Wilno, Poland, for a child head in gum. Honorable mention went to J. A. Young of Seattle,

THE CONFERENCE LOUIS J. STEELE

New Westminster Salon of 1924

Nelly's, Athens, Greece, and John Moffat, Edinburgh, who exhibited four charming child studies. Of great interest were also the exhibits by Wayne Albee, Seattle; A. D. Brittingham, Bridgeport, Conn.; R. D. Dooner, Philadelphia; Louis Fleckenstein, Long Beach, Calif.; L. Fink, Seattle; Nicholas Muray, New York and F. Y. Ogasawasa of Portland, Ore.

In the pictorial section Louis J. Steele of Portsmouth was awarded the Silver Gilt Medal for "The Conference", a strong print depicting two priests on a sunlit street corner, there may be little originality in the concept of this subject, it may be called old fashioned, yet the rendering of the two black figures against the fine sunlit atmosphere of the old walls tells its story to perfection. One cannot help, on seeing the setting in many old country prints, of feeling the advantage European workers have over many of us in a new country, where the practical goes before the beautiful, and where time has not had the influence to ripen that practical concept, into the beauty of age. Italy especially seems to be a great hunting ground for European Pictorialists.

Very original was G. Helmuty, Graz, Austria, in his print, "The Saint", a statue study of fine composition and striking strength, made at night, and for which he was awarded the silver medal.

Bronze medals in this class went to H. Berssenbrugge, The Hague, Holland; Julius Aschauer, Vienna, Austria; Dr. R. Muller, Graz, Austria; Count S. de Limburg Stirum, Olst, Holland; Jose O. Echaque, Madrid, Spain, and the Mesdames Morter of London, England, for a perfectly good joke, "The Modern Housemaid". On appreciating the merry spirit of this print one wonders why so very few smiles are reflected through the lens. I do not mean grins, but jolly occurrences which make one smile with the originator of the idea. Is not good cheer one of the greatest blessings in life? Why, then, should it not appeal more to us pictorialists?

Very original and quite clever was C. W. Gibbs of Chicago with a composition of lamp glasses.

Nicholas Muray displayed six excellent prints of which "The Shadow" was given special mention. Miss Edith R. Wilson more than deserved mention with her lovely "Ebbtide". G. W. Harting excelled in his portrait of "Gardner Hale", though the "Jugend Man" was close second. Wayne Albee exhibited some of his classical dance studies. L. Fink of Seattle had an exceptionally fine print in his "Waiting", a girl in gray against a sunlit wall in gray. Henry H. Hussey was strongest in a charming design of curves and reflections, "Canoe Landing." Michael Shuter of New York was given honorable mention for his striking "Commercial Still Life", striking not because of the clock in the picture, but of good spacing and attractive shadow design.

NOTE—the Review of the New Westminster Salon of Pictorial Photography will be concluded in the January issue of Camera Craft.

Letterhead Holiday Greetings

By Sigismund Blumann

Illustrated by the Author

In the olden days when plates and papers were sensitized by the photographer many novel and beautiful things were made at home that could not, and cannot now, be had in the open market. The very fact that such articles are unknown to the present generation should make them welcome to the recipient. Moreover, there would be found a peculiar pleasure in the adventure of going back a quarter century or more to produce novelties of the sort. Letterheads, for instance, with a bit of scenery, or a child's portrait, or a bunch of flowers, might be wrought into works of miniature art. The task is neither expensive nor difficult. The necessary chemicals are already on the shelves of most amateurs' darkrooms, or may be obtained at the nearest chemist's shop. Any fitting paper is useful. The prints may be in black, brown, red, or blue. The sensitized emulsion may be made soft or contrasty.

Should blue be the color selected, one need only compound a blue print solution, several of which will be given further on, and print in daylight, followed by development in ordinary tap water. The chemicals are so cheap that for a quarter of a dollar a hundred letter heads can be sensitized and enough of the solution be left for coating postcards and such things. It may be applied to muslin and linen from which the starch or sizing has been thoroughly washed and printed and developed in plain water the same as on paper.

Browns are obtainable almost as easily and cheaply. It will be necessary however to develop in a solution of Rochelle Salts and Borax, or with an Acetate. Blacks are produced with the same sensitizer by changing the developer. A simpler Sepia print may be had by merely toning and fixing in very dilute Hypo. Reds are somewhat more difficult in obtaining. And the gold-toning bath is apt to make a hundred letterheads cost as much as a dollar.

Let the reader at the very outset impress this on his mind: the prime requirements are chemically clean utensils, unspoiled chemicals, careful and accurate compounding and manipulation, and the same precautions against exposure to light that is required by any photographic paper. No metal can be brought in contact with the solution, in the bottle or when coated on the paper, without a resultant streak on the latter and the complete spoiling of the former. If brushes be used they must be rubber set and bound or quills. A simple home-made Blanchard brush or medicine dropper and absorbent cotton swab arrangement will do almost as well as a camel's hair brush and may be kept cleaner.

To proceed to the making of the tools: Take a swab of the best absorbent cotton and make it into a loose ball. Put this at the end of a medicine-dropper and work the cotton up till it can be tied about with

clean cotton thread or an elastic band. What results will look somewhat like this rough sketch. Now take any old film and cut it into strips about an inch or two in width and three inches long. Cut some soft canton flannel a little wider and a little longer, say a quarter inch wider and an inch longer. Over two thicknesses of the film lay the flannel, fluffy side out, double it over into a sort of loop and catch the ends together with a common clothespin clip. You now have a spreader. With this you will smooth the sensitizing solution on the paper after you have brushed it on with the medicine-dropper device. To use the dropper squeeze out the air, dip the cotton wad into the solution and let it become saturated, let go the rubber bulb and when the glass tube is half full remove from the solution: the excess of solution will be drawn into the tube and the swab will stay just properly wet and no more. If the flow be sluggish during the coating the bulb may be slightly squeezed to exude the liquid to just the proper amount. This will not only provide the first coating utensil but acts as a filter. Work fast and lightly so as to spread evenly before drying or absorption begins and to avoid abrading the paper surface. Then take the spreader mentioned above and, still lightly and evenly, brush the wet from side to side and from top to bottom. Hang by a wooden clip in some absolutely dark closet till dry, which will be for an hour or two, and the paper is ready. By coating in the evening you will have the paper ready the morning after. The sensitized paper may keep or it may not. We have never succeeded in making it last over a day or two. So coat as much as you want for immediate use and no more. That is all there is to the thing.

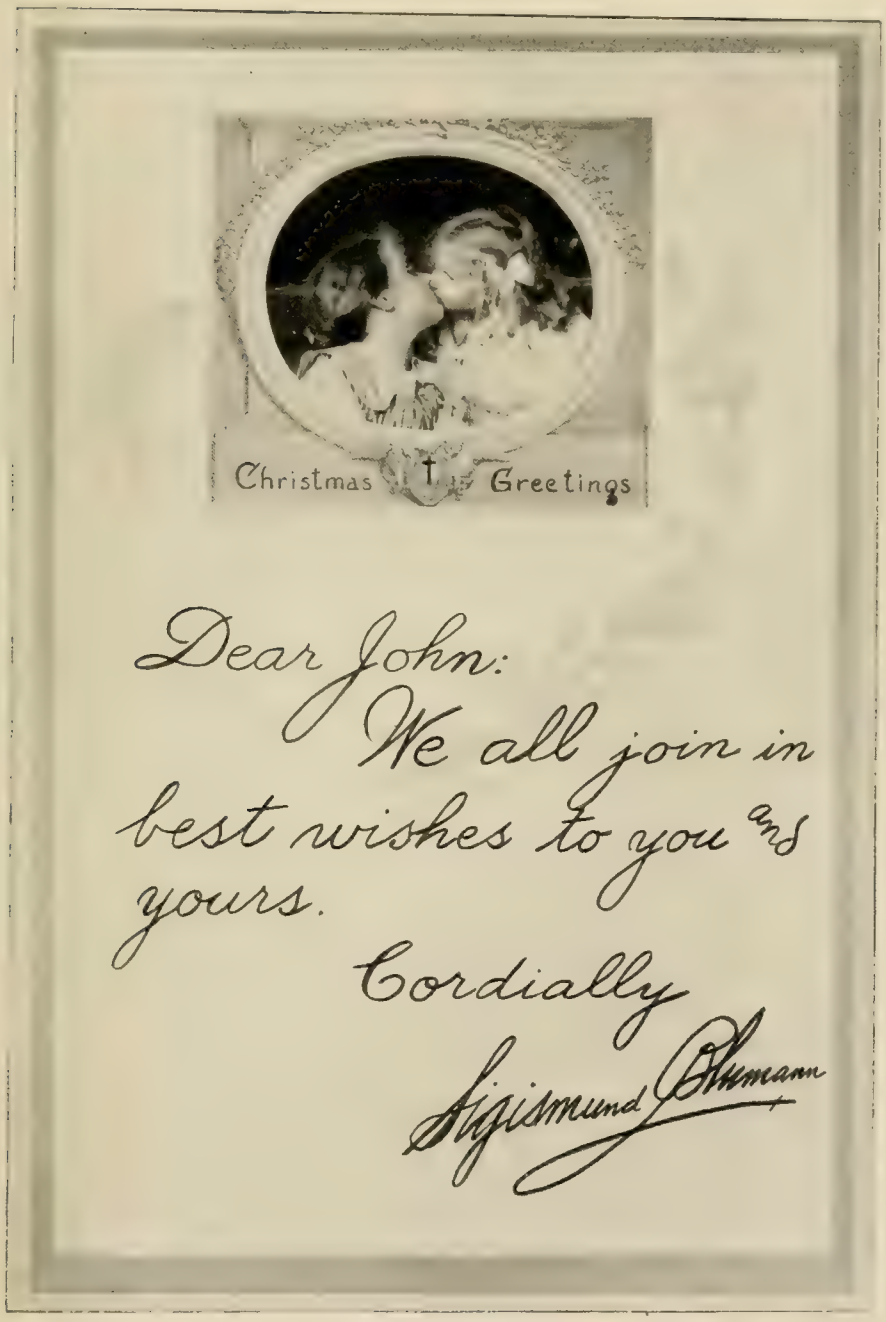
Now for the formulae.

Blue Print Sensitizers.

A. Citrate of Iron and Ammonia ..... 20 Parts
Distilled water ..... 100 "
B. Potassium Ferricyanide (Red Prussiate of Iron) ..... 16 Parts
Distilled water ..... 100 "
For use mix equal parts of A and B just before using and after shaking well filter into another bottle.

Another in One Solution.

Dissolve 150 grains of Potassium Ferricyanide in 3 ounces of distilled water and when thoroughly dissolved add 240 grains of Citrate of Iron and Ammonia. When this is dissolved add 15 minims concentrated Ammonia. Some authorities recommend adding the Ammonia before the Citrate but we have found no advantage in doing so. However, each to his taste.



A CHRISTMAS SUGGESTION

The holly spray was drawn on the mount-card in blue pencil. The picture was mounted on the white card, and double mounted on gray and the whole photographed to the desired size.

Coat only as much of the paper as you will want to print upon. Expose by strong daylight but not in the sun till the shadows are bronzed, then develop in a tray of tap water and wash in successive trays of clean water till no more yellow dissolves out. Then soak for ten minutes in a last tray of clean water for safety and dry. Do all this in a room where no daylight will strike the paper. Gaslight or a 40 watt electric bulb will do no harm if respectfully kept at a proper distance.

Sepia Sensitizer.

Soak any hard gelatine overnight, about 6 grains to the ounce. Next day complete the solution in a waterbath by bringing to a degree of heat just enough to produce a clear, complete liquid. When cooled to a tepid degree add, in the order given and letting each dissolve before adding the next, Tartaric Acid 8 grains, Silver Nitrate 9 grains, Citrate of Iron and Ammonia 40 grains. Filter and coat as for Blue Prints. Print as directed above and after thorough washing tone and fix in water 2 ounces, Hypo 25 grains. Wash thoroughly and dry between muslin or blotters.

Kallitype Formulae.

These sensitizers will give browns, reds, or blacks according to developers used and produce paper as fine as any that can be bought, factory made.

Ferric Oxalate	75 Grains
Silver Nitrate	30 "
Distilled water to make	1 Ounce

Solution will be slow but the completed mixture will keep for months in a brown glass bottle kept away from daylight. The paper will be more sensitive to light than either blue print or sepia and prints faster in consequence. Extra care in protecting from light before, during, and after printing is therefore specified.

For Engraving Black develop in

Sodium Acetate	70 Grains
Water	1 Ounce

When completely developed transfer to

Potassium Oxalate	80 Grains
Water	1 Ounce

For Maroon tones develop in

Rochelle Salts	45 Grains
Sodium Tungstate	20 "
Water	1 Ounce

For Brown to Black tones develop in

Borax	45 Grains
Rochelle Salts	30 "
Water	1 Ounce

ANOTHER CHRISTMAS GREETING

The print of the Multnomah Falls was torn to the shape shown and mounted on white stock: The design was then drawn in blue pencil and the whole photographed to desired size.

The less Borax the warmer the tone. Reducing the Borax to a few grains or omitting it altogether will give a pure brown. Whereas a reduction of the Rochelle to 10 grains will give a pleasing purple.

Note well: A One Per Cent solution of Bichromate of Potassium should be on hand to be used as Bromide is used in developing. The more Bichromate the greater the contrast. With a liberal use of this restrainer contrasty prints may be obtained from negatives that are too thin even for the most contrasty developing paper.

It is said that after washing it is well to fix the prints in a bath of Stronger Ammonia 7 minims, Water 1 Ounce. But we have a print made from the above formula that after twelve years shows no signs of fading or of stain.

Some may desire to size the paper and for those we give a formula, though we have found no need for doing so even on the cheapest of writing papers. Arrow Root 2 to 5 grains to the ounce of water. Put the starch named in a cup and add the water drop by drop stirring it as a housewife does the cornstarch she is going to cook. When a homogeneous paste is made add the remainder of the ounce of water and slowly heat till the solution turns clear. Dip the paper into the warm solution and hang up to dry.

Gelatine may be used and prepared in much the same way but with the addition of 3 grains of powdered Alum. Gum Arabic or Albumen may be substitued but we warn the reader that any form of sizing complicates the process, increases the risk, and modifies the tone. Why bother?

Before leaving this part devoted to formulae it is just and right to speak of James Thomson, the man who has devoted years to experimenting with Kallitype and whose word is final authority on the Iron Processes. We would also recommend all who are interested to read the issues of Photo Miniature devoted to "The Blue Print", "Kallitype and Allied Processes", and "Albumen and Plain Paper Printing". We promise a wealth of enjoyable reading and the unalloyed joy of experimenting in what has become an almost unknown field.

Having the solution decided upon ready and the tools at hand, a chosen negative is placed in the printing frame and a sheet of thin white paper placed over it. Look at the negative through the paper and draw a jagged line to mark the outline of what shall make the mask. Lay this paper over a piece of black paper and with a sharp penknife cut through both. Your mask is now ready. By using a printing frame large enough you can now print paper of letter size, sensitized as directed and make for yourself a variety of headings which will give you amusement in the making and your friends pleasure on receiving.

If you succeed send me a letter on one of the first sheets you make.

If you fail write me on one of the spoiled sheets. But, please, dear friends do not as many have done, write me how you tried methods of your own and deviated from the directions, and ask why your way did not succeed. Before exploring into unknown regions, master the landmarks

of the known. You may carry the banner from where others have left it but you must attain to that point before going further.

Those of our readers who have not the time or inclination to sensitize their own paper may buy, ready made, a thin bond-like bromide paper which has a thin and dull surfaced emulsion. Such a paper looks and feels like the best grade of letter stock and is readily matched to envelopes. The printing procedure remains the same. A reference to the article of Mr. Carl Bergmann in the November issue of Camera Craft will richly repay the reader. When one can add the labor of love to such beauty as Mr. Bergmann puts into his prints, a Christmas Greeting, whether on card or letter sheet becomes more truly what it is intended to be. For after all, we can with our own skill put more sincerity, fervency, and affection into what we send at this season than any manufacturer or printer.

Portraiture: An Art

By Frank Scott Clark, Detroit, Michigan

Illustrated by the Author

(Continued from the November Issue)

Showy composition depends on spots and great opposition of lines, with two distinct values of dark and light. A showy character requires a large amount of oblique concentration of masses in a portrait. A cold nature will have very little oblique feeling in the figure.

A stiff position can be made easy by keeping the dark spots oblique to one another. By keeping the darks vertical to one another, a lively movement will be given. When a figure is slightly bending over, the accessory masses should take the reverse direction which will emphasize the leading movement.

Every figure should have details to connect it with both background and foreground. Connect one section of every object as much as possible with the obscure part of the scene. This will chain the whole together.

A composition will show at a great distance if it has two values of dark with very little contrast and two lights of nearly the same value. Black should come next to where light and dark meet. Light drapery or a light object cut at the side by the frame, will bring the scene forward and make it very abruptly interesting.

Find the highest point of an object and hang things ornamentally out from it. By allowing sections of objects to run out of the frame, we add to the importance of the part left in. To force things upon the attention, keep the objects facing the spectator. Reserve for the main interest the great contrast, all others being kept in relation and subservient to it. Construct solidly and ornament lightly. High lights are like jewels—to be put on last.

A framework in composition upon which to place spots or objects may have two lines, one tending up, the other down. The charm of line may be shown by the use of a mass of shadow. All lines across the picture in one direction and spots of interest in another. All the lines in an arrangement running to one point will give greater variety than where they are parallel. To make a figure stand more firmly, introduce horizontal lines; vertical lines give stiffness to a pose. A general precept is to run all lines one way to one point with one mass in opposition where the interest may be placed. The interest is the sum total in composition.

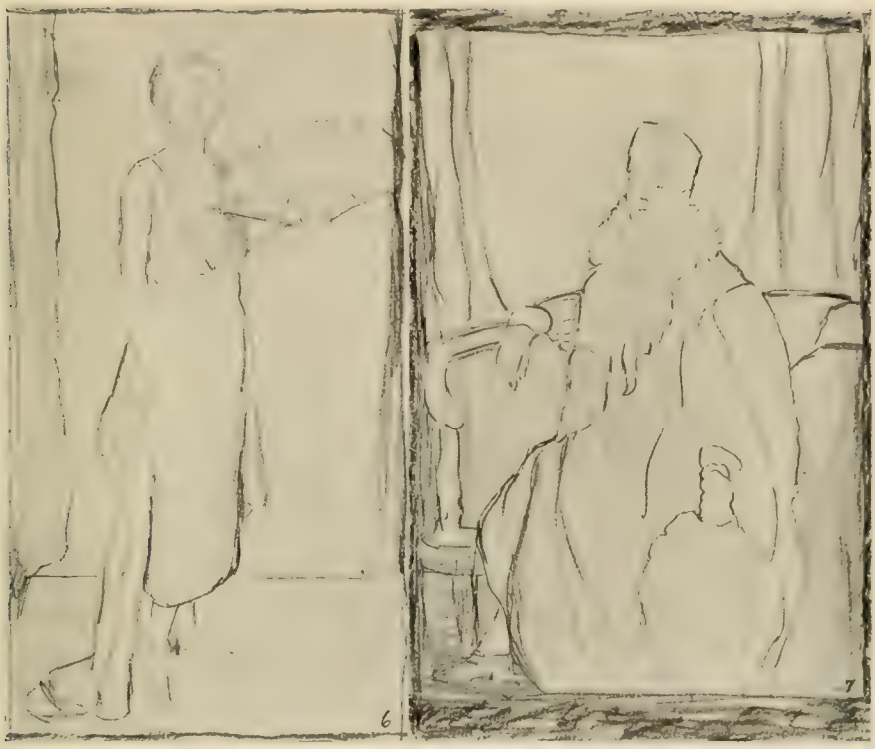
You see everything en masse, with different shapes to suit the subject. Balancing a picture depends principally upon form and the proper proportion of the light and dark masses. Find the great light or dark mass and graduate out from it, keeping the two great oppositions near one another. Light may burst into darkness fit around light.

A picture is a joy expressed. In generalizing a scene for a picture, give full play to your imagination, refined by feeling and simplicity. Consider it all one thing and throw out that which will not suit the idea; then you are sure of harmony. It is usually the color or tone of the air that produces harmony of objects. Contrast of color will set the scene off. The tone line may be utilized to increase charm. The stronger the tone line in a portrait, the more dignified the pose. Tone gives quality and space. The complementary of tone makes the effect sing. The objects generalized that throw off light are those that give the visible tone to the picture. The strength of light gives it its quality and accent sets it off.

The tone of light is in two values, light and dark. Objects are seen through their own glow as well as through the tone of light. **Light must never have the feeling of something stationary**; locals should. Light is an overtone; it should lay **on** the object. The tone is a fact, the half tone only a suspicion. Things are out of tone when they do not hold together as they do in nature. Light is neither harmony nor complementary, but opposition that produces the brilliant conditions in a picture. Light is never a decided thing, it is always a suspected something. Understand your effect of light—its angle of direction as related to the sitter. Stringy lights are best avoided. In modeling an effect of direct light, keep reflected lights very quiet; this will give your study a more solid appearance. Objects must keep their place. Generally speaking, reflected lights should not appear in the background.

If one and two are fact, three will be charm. Charm always favors one of the facts. Generalize the local to one big fact and use charm in its favor.

To make a picture carry, or be seen at a distance, have as few values as possible. Carrying power is one of the great essentials in portraiture. Photographers, the great majority of them, give too little attention to the carrying power of a portrait, and, in my opinion, lay too much stress on the softness and delicacy of the negative from which they are making their prints.



TREATMENT IN SPACING FOR A TALL WOMAN

TREATMENT IN SPACING FOR A STOUT WOMAN

When your picture appears weak and does not show at a distance, the values are not great enough in opposition and the masses too much cut up. Simplify them. Values and construction are the powers of presentation. Keep more shadows around women than around men.

A portrait does not depend upon the little things, but upon the big relations and differences. Look out for cheek bones, the direction of the mouth, whether oblique or horizontal, how the eyes slant in the face. These are the things that count and not a little pretty drawing here and there.

A thin person should have a wide space about her, a stout person, a narrow one, to set off their characters by opposition. If tall, have very little space above the head; if short, a very large space. If the subject is to be on a square arrangement, decorate with rounds. Use oval decorations for an oblong picture.

When a person strikes you as being of a cold nature, place the hands far away from the head in the portrait. Persons of a warm nature may be portrayed with the hands near the head. A compromise between a warm and a cold nature may have one hand up, the other down. Never have the hand near the head in a portrait unless the hand is very beautiful and the head small, as it will make the flesh spot too large in the composition.

Now and then planes may be influenced by reflection. If a feature is ugly, like the chin for instance, one can reflect light into it and take out some of its force. Where beauty is lacking, expression, color, and arrangement of drapery, may be used to make a pleasing ensemble. If expression in a head is more interesting than character, choose the effect of light to emphasize the most pleasing characteristic.

The head is the most interesting part of a figure. Every portion of your study should lead the eyes to it forcibly. By the arrangement of lights, line, and masses, no matter what attracts momentarily, the eye will return to it alone.

Eyes are the most expressive part of the face. Keep all other features subservient to them.

In the drapery of a figure the decorative line must be made out in value. Decoration of drapery means filling out the holes and cracks. All modeling is a question of holes and lumps. Model by mass and find the character of modeling on the edge of these masses.

Don't have things look as if they came out of a factory. Nature has no factory. A photographer can enter into competition with nature only by a perfect knowledge of the best modes of adapting it to his purpose.

Art does not consist in giving a particular touch or tone but in interpreting nature, whether figure or landscape, in all its varying moods and conditions, so that each picture is distinct in its charm of life and air as well as form. All must harmonize.

In all objects in nature there is something predominant and which alone has struck the observation of everyone. If the artist gives that, he brings his sitter at once home to the bosom of the family without which his greatest labor is but industrious trifling.

The character of the sitter must be brought out by a careful concentration or diffusion of light, according to the type and style of the sitter, to obtain which requires constant study.

Light and shade is the language of your craft and an abuse of it will not only destroy the likeness but annoy the sitter. Light and shade considered as a means of producing a description, by making parts of a picture advance and other parts retire, so that everything may keep its relative as regards the distance from the spectator, is a necessary attendant upon perspective.

Richness of effect either by a mixture of the right sort of light and shade so as to give the appearance of doubling to the outline, or by revealing the outline by a ground possessed of several strengths, and distinctions of form surrounded by flatness, when we wish any part to attract notice or to preserve the expression undisturbed, are both under the dominion of chiaroscuro to whose control the whole scale of tonal quality yields implicit obedience.

If you can live up to your absolute belief with your whole strength, it is the truth. Your truth is in the art lines, and the end of our efforts is absolute simplicity.

A Review of the San Francisco Salon

By Anson Herrick

(Continued from the November Issue)

Herbert Bairstow's six transfers show great variety of subject matter, technique and craftmanship that should be a model for all to follow. While they are all excellent, "An Important Question", (a genre) is I think the best. The six of Francis O. Libby are quite a contrast to the relatively small prints of Bairstow. They are large, low key, dramatic gums. "Moonlight" is the best. It is a beautifully decorative thing well done. His "South Wind" has a complete absence of detail or even feeling of detail in the large masses of shadow that, to me, should have prevented its acceptance. Of the six transfers by Maximilian Karnitschnigg of Austria, his study of three peasants (No. 132) is the most interesting. It is truly a remarkable thing as in fact are all of his group.

Chas. K. Archer wonderfully presents a scene of industrial activity in "The Boss". It is a picture in bromoil of a gang of cement workers atop a skyscraper during construction. The action is good but as the treatment is a trifle broad it must be viewed from a little distance to get its real beauty. His "Uptown, Pittsburgh" is next of his group and, from a distance, makes one think of an old world city. His "Cheat River" took first prize in the American Photography Contest this spring and makes one wonder if the selection were made by drawing lots. It is a good thing but certainly not a "big" picture and not up to his other three. Archer makes one think of Pittsburgh and Pittsburgh of Reiter and Zieg. Of the four by O. C. Reiter the "Spirit of Pittsburgh" and the "Builders" are the best. I would like to see the former in a larger print. W. W. Zieg has three. "Half Time" is a good industrial study in bromoil while his "Tranquility" in the same medium is very fine.

Gessner Helmuth of Austria has given us in his "Scene in Oktaler, Alps" one of the best two or three prints of the Salon. The sunlight on the distant snow is remarkably presented and the masses are particularly well handled. It, as well as his other two, are particularly fine examples of exquisite transfer technique, well employed.

Anne Brigman shows five characteristic subjects. "Rondo" is truly a wonderful poetic conception and is truly Brigmanesque. "Sheeps Clothing", a man's head in a hooded robe, shows more of her recent tendency. Her "Lachrymea" is a distinctly unpleasant though strong study of a girl's head. As a group I do not think that they equal her older work.

Dear old Doctor Chaffee has five characteristic bromoils. Chaffee was the premier American bromoilist. His bromoil technique has now been equalled by others but none as yet have so well blended good bromoil and good subject matter. His fishing boats ("Douarninez", "Finistere") and the European city byway ("Uzerches") are particularly interesting and masterfully executed. Pictorial photography owes a debt to Dr. Chaffee such as it owes to few others and such as it can never repay.

In mentioning the improvement in American bromoil and transfer the name of Louis A. Goetz of Berkeley comes to mind, at least to western workers. He is working, as are the other local bromoilists, along the line of unmodified work. That is, he is avoiding hand work and striving for the equivalent of a straight unretouched photograph in which the silver image is merely replaced, without alteration, by ink. His technical success is remarkable. The multiple transfers of which he shows five are perfect exhibitions of transfer at its best and are excellent bits in pictorial quality. His "Campanile" is one of the best prints of the Salon and his "California Hills" because of its wonderful rendering of the velvety quality of our bare slopes and its interesting arrangement of planes and lines is next. "Laid Off" is a strong and novel genre with a modernist touch. H. A. Hussey is another local worker who is producing beautiful work and shows a decided advance over last year. His four are bromoils. "Doomed" is the most dramatic. A picture of a wrecked ship presented in a low key green that gives a very adequate and satisfying night effect. His "California Hills" is a beautiful picture of a simple subject and is quite equalled in quality by "Stacks", an interesting and well executed industrial scene. Reference to local workers should include G. H. S. Harding who shows three, two bromoils and a bromide, and P. Douglas Anderson with two bromides. Mr. Harding's "Still Life" is I think the best. He has made an interesting thing out of an amidol bottle and a graduate. Mr. Anderson's "Towers of Finance", a picture of the business section of San Francisco, is a particularly strong thing excellently rendered.

While J. P. Edwards belongs to San Francisco, his reputation and acquaintanceship are international. He is well represented by five straight silver prints but this time he has abandoned his usual chloride for bromide. The "Hangman's Bridge" shows probably the best arrangement though I am particularly attracted by the beautiful atmosphere and execution of the "Gateway in Rothenburg".

There are quite a number of still life pictures of interest and novelty. Among them is one by Laura Gilpin in which the arrangement is very good. Then there is a pleasing Japanesque study ("Notan") by T. Y. Ogasawara, two by Michael Shuter, one by Margaret Watkins and two by Wilbur Taylor. The two by Mr. Shuter and the one by Miss Watkins are particularly good examples of commercial still life and show how the camera may be used for artistic advertising work. Of the two by Mr. Taylor, the "Black Vase" is so much the better that one wonders how the "Cup and Saucer" was accepted. Another still life study is the one by Taro Myake, a newcomer, who presents three very creditable prints of which the still life (Transfer) is the best though his study of "Water Lilies" (Bromoil) is beautifully rendered. His "Morning Fog" just misses the evidently intended effect, due to imperfect quality of the inking in the shadows.

It is rather interesting to note a similarity of subject matter and treatment between the Australian and American work. When it is remembered however that the two countries have much in common it probably is not remarkable that the similarity should appear for, is it not rather natural

OLD MOTHER

DENIS RONAI
Budapest, Hungary

Third San Francisco International Salon of Photography

that similar climatic conditions and great open spaces should produce similar trend of thought, subject and treatment? Mr. Bostock has three very creditable prints which show great versatility. His "With Limbs All Twisted" (Bromoil) is a simple subject, an old tree but its beautiful execution and admirable treatment make it his best. His other two are bromides and one of them "By the Western Window" makes one think a little of Edward Weston, who by the way, is not represented and seems to have dropped out as a Salon contributor. The other Australians are John B. Eaton and Victor Frantzen. Mr. Eaton's "Open Road" is a nice thing well done and has already been honored by reproduction in "Camera-graphs" issued just after the recent Australian show. His "Showers on the Plain" is unfortunate in the fact that it is similar in subject and suffers by comparison, but his "Bush Sprites" is charming. The delicate and slender Eucalyptus trees in the sunlight against the shadow of the deep "bush" are quite suggestive of the title.

Two men who show great development in the past year upon the basis of their contributions to San Francisco are Eugene P. Henry and Holmes I. Mettee. Each of Mr. Henry's four is so different in subject matter as to indicate a versatility which is quite a pleasing contrast to some workers who harp only on one string. "The Ship Builders" is an industrial genre showing interesting action, well taken and well executed in bromoil. "Mirza" is a German police dog, surely a difficult bromoil problem but it has been beautifully executed. His other two, one a ballet girl in the process of making up (bromoil) and the other, a bromide portrait head of an old "salt" are well executed and would warrant favorable comment were it not for the superiority of the first two.

N. P. Moerdyke shows one of the striking groups. Five gums, each different in subject but all beautifully executed, present this difficult process at its best. Each one merits individual consideration but a limit on space prevents. Three of the prints, however, raise a question (as do some of those of Libby and Lovejoy) as to whether they are not delving into realms of poster effects which the painter with his colors can more effectively present. Mr. Moerdyke's "Veteran of the Snows", "Becalmed" and "Lower Away" are posters, and as such the masses of light and shade have been deftly handled.

Dr. Rupert Lovejoy, Alfred Brinkler, Dr. Kilmer and H. A. Latimer are, if I am not in error, the remaining gum workers. Mr. Brinkler in "Milady's Garden" has successfully attained a charming moonlight study which is very quiet in atmosphere while Mr. Latimer's "Storm Cloud" is dramatic. Its general effect gives a feeling of wind-swept shores, bending palms and rushing clouds. Of the three by Dr. Lovejoy, "Nocturne" is a delightfully decorative winter's night scene and, to me, quite outshines his other two. Dr. Kilmer's "Clam Digger" is simple, which commends it to me, and the subject matter is well placed.

The European gums have little in common with their American brethren. The latter are all, or nearly all, large low key studies, frequently dramatic in their appeal. The former, however, are more photographic

AN OLD STREET OF PRAGUE

JAROSLAV KRUPKA
Prague, Czechoslovakia

Third San Francisco International Salon of Photography

and are frequently delicate and small with a wealth of detail against the absence of it in American work. J. Harold Leighton has achieved something in his work that is individual, altogether delightful, and his four constitute one of the strong groups of the Salon. They are miniatures in size yet carry well and evidence a beautiful and quite different technique. Franz Holluber of Vienna, Rudolf Padouk of Czechoslovakia and Henry Schneeberger of Paris, complete the foreign gum contributors, though Ortiz Echague might be included through the similarity, I believe, of the new Fresson process. All of their contributions are real assets to the exhibition. That of Mr. Schneeberger reminds me a little of Leighton though his prints are larger. In his "Solitude" the sunlight veritably sings. Mr. Holluber has given to the Salon a charming water scene in "Reflections". It depends for its effect not upon a handling of dark heavy masses but upon a water quality that is truly wet. Rudolf Padouk has four prints of which the "Portal of a Church" is probably the best by reason of its rather remarkable portrayal of flickering sunlight shining through the leaves of a tree. The best of the two by Ortiz Echague is a large strong "Fisherman's Head" and is rather compelling.

S. L. Coulthurst and Fred Judge are two of the prominent English transfer workers. Each has three prints of delightful quality. "Venice" by Mr. Coulthurst is a delightfully quiet picture of a Venetian canal while "Old Edinburgh" by Mr. Judge contains a charming hazy atmosphere which makes it easily the best of his group. At a little distance it looks quite like an old, old etching (a statement of fact only, because a similarity to a non-photographic process is not by itself a compliment to a photograph).

Jaroslav Krupka is one of the new contributors. He is represented by four charming bromoils. But contrary to the usual bromoil the surface is dead mat and there is no evidence that the effect was produced by the usual method of de-fatting. "An Old Street of Prague" is easily one of the masterpieces of the Salon but none of the remaining three suffer by comparison.

To speak of beautiful women is to think of the Viennese and to speak of Viennese women is to think of Mme. D'Ora who so beautifully pictures them. No one produces a quality like hers or is so successful in the beautiful rendition of dress texture. Her three prints represent this type of professional portraiture at its best. Nicholas Muray is, like D'Ora, best known through his pictures of beautiful women though his treatment is different and his Salon successes have usually been figure studies. His head of "Desha" is charming and typical but his nude "Study" is not up to his usual standard. Arthur Muray is apparently following his brother but he has some distance to go before he can think of overtaking him. Nevertheless his one print of "Willy Pogany" is well executed and interesting not alone because of the subject but because of its excellent trimming.

Adolf Fritz of Vienna is represented by four exquisite transfers. "Moonlight" is done in a green ink upon a yellow paper and gives a remark-

A CANAL IN VENICE

LIONEL WOOD, F.R.P.S.,
Brighton, England

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able effect of color. Not only is his technique quite perfect but, and most important, his pictures are truly beautiful things. J. M. Whitehead of Scotland is another well known European worker who is well represented by four prints, beautiful exhibitions of the possibilities of straight photography. Whitehead's work is quite individualistic and it is to be regretted that there is no great versatility in subject matter.

One of the very few nudes is the "Archway" by Angus Basil. It is decorative and an altogether delightful picture. The nude in photography is so seldom well done that it takes a picture such as this to remind us of its possibilities.

Dr. Jaeger has three of his usual charming and characteristic miniatures which hold one's attention both by their excellent print quality and by their interesting subject matter. Other New Yorkers are G. W. Harting and Dr. Nilsen with three and one prints respectively. Mr. Harting's "He Waits" is a corking good thing and the best of the three though "Monday's Wash" while not beautiful in the ordinary sense is quite redolent of the New York east side. The fact that but one of his three is up to the high standard which he set for himself last year is unquestionably due to the great amount of time and effort which he has given of late as President of the Pictorial Photographers of America, a service for which he should have the gratitude of every American worker. Dr. Nilsen's "In the Hold" is a remarkably good thing, even better than the things he used to produce with his elephants. The picture shows a group of stevedores at work in a vessel's hold and the point of view, directly above, results in a quite interesting genre.

It is unfortunate that space will not permit of a complete discussion of many of the prints that individually merit comment or to criticise those that are weak. Paul Wierum, Conde De la Ventosa of Spain, W. A. Alcock, Clark Blickensderfer, Denis Ronai of Budapest, Thomas Sheckell, Karl Suchy of Vienna, Chas. H. Brown, Howard Cloyes, Johan Hagemeyer, Dr. Pardoe, Joseph Petrocelli, Forman Hanna, Miss Hoops and Miss Lauffer, Arthur Lomax of Wales and Mischol of Switzerland all have work that in one way or another, because of interesting subject or excellent treatment, should be fully considered. Ronai in particular has a remarkably good group of four, Miss Hoops an exquisite marine sunset and Arthur Lomax an interesting shadow study while Paul Wierum in "Finley Siding" proves that a commonplace railroad train can be the subject of an interesting picture.

Some of the impressions made by the exhibition are rather definite. First, it is a better show than either of its two predecessors. Second, the best of the American workers are holding their own in the comparison with the best of the European workers. Third, process work is increasing both in quantity and quality, particularly among American work. Fourth, the "old order changeth" as it always will and we find new workers coming to the fore and taking their place among the leaders. Many newcomers show prints which quite satisfactorily take the place of such exhibitors as either did not contribute or failed of acceptance.

CAMERA CRAFT

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The Season of Good Will

Christmas, we are too often told, comes but once a year. Would it might come every day and bring with equal freshness its spirit of good will. The religious significance of the day is small as compared with the sublime greatness of its human message. Whatever one's faith, in kind or degree, the path that began at the manger and leading past Gethsemane and Calvary to the lonely sepulchre where the blessed mother watched and mourned, must ever be a path of glory. It has blazed down the ages and shall shine resplendent to ultimate posterity. Its lessons of humility, philanthropy, and immolation cannot be lost in the complexities of theology, nor be fogged by logic, the premises of which are always changing with access of knowledge and discovery.

We have evolved from the primitive instincts of prehistoric man, through Aristotlean fantasies to a half accepted Einstein theory: We have believed and we have doubted many things. There be Jews and Gentiles, Mohammedans and Buddhists, Confucianists and those of other beliefs, with many shades of each and innumerable divisions, but to each and all the Golden Rule remains as the basis of right action in the dealing of man with man. The Christian doctrine survives the vicissitudes of time and thought. The divine gift of Him who was this day born remains as a Divine Gift. It cannot be mortalized: The gift, though so crassly refused or neglected, still is at our hands, and on a purple silken cushion and platter of gold is offered us to take and we but will.

PEACE ON EARTH: GOOD WILL TO ALL MANKIND.

YE EDITOR RETAILETH NEWES OF YE PROFESSION AND IN QUAINT ITALICS TITILLATETH YE SPHYNX WITH HYS QUILL

Colorado Gets Away at Full Speed

The following letter from John Child, Sec.-Treas., of the newly organized movement by the Photo Finishers of Colorado, covers the work done to date.

Denver, Colo., Sept. 2, 1924.

Photo Finishers Ass'n. of America.

Dear Mr. Burgess:

Twenty Finishers of Denver have banded themselves together as a start for a Colorado Division of the Association. This has been accomplished only through the enthusiasm started by the P. F. A. of A.

At our last meeting it was voted to secure from National Headquarters, complete information and ideas for the formation of a state body. Kindly let us have any ideas as to financing, conduct of meetings, organizing out of town members, and any other suggestions that will help us get started.

Personally, I want to thank you for the big idea. We have profited here in Denver. It looks like we will be banded together before another season gets around, getting better prices and not giving all our profits away as premiums.

Success to the Association.

Yours very truly,

(Signed) JOHN CHILD,

Secy.-Treas. Colo. Finishers.

Albert Haanstead, Pres.

Joseph Ossen, Vice-Pres.

And so Colorado comes across right along with California. Two of the richest Photo Finishing states in the Union—lands of Sunshine and tourists that keep the ground littered with film cartons. The Association emblem should grow in importance so that tourists will have perfect confidence in leaving their films anywhere the emblem is displayed.—From "Developments."

W. H. MANNING.
President Commercial Photographers of Detroit.

The Commercial Photographers' Association of Detroit

This organization has been in existence for five years and has a membership of thirty-one, comprising practically all the Commercial Studios in the city. There are also to be included two firms from Lansing, Michigan, and two others from Flint. The meetings are monthly and are preceded by a dinner. The record of attendance rarely falls below eighty percent and the spirit of fellowship always prevails. Each strives to do his best, and to help his fellow-members, and to advance the general good.

This may explain why the work exhibited at conventions during the last year put Detroit at the top and why the

Silver Cup went to this group. We are told that the members put in four months of the most exacting labor to produce and assemble the wonderful collection of prints shown. As is usual in any concerted action, an individual acting as leading spirit, was found in the person of Mr. Leigh Wyckoff, Chairman of the Commercial Section. A grateful body of friends in his section presented him with a handsome gold watch in recognition of his splendid work.

The spirit that actuates this group of photographers should be emulated in every city in the land. By acting together, all for one and one for all, they have achieved, thus proving the benefits, the essential need, of Associations.

We take pleasure in publishing the portrait of the modest and kindly-souled president of the Detroit Association and feel sure he is as proud of his co-workers as they are of him.

The quality of your product is not in the plates you use, the developer, or the paper. These are only parts of the whole. The sum total of material is vitalized by genius and skill.

The Willamette Valley Photographers' Association

Saturday evening, October 18, The Willamette Valley Professional Photographers' Association held its first meeting of the winter season, as guests of the Gunnell & Robb Studio. A banquet was served the members in the Oriental Room of the Grey Belle at seven o'clock, after which the program and the business meeting was held.

Mr. Perry Evans, President of the Pacific Inter-National Photographers Association, gave a short talk on The Plans of The Greater Association for 1925. Following this, Mr. Jacob Ganzler, of Portland, spoke on The Commercial Section of The Portland Association. Mrs. Dodd of Willamette University gave an interesting talk on Photographic Art, illustrating her points with photographs. The Brotherhood and Fraternalism of Our Profession, was the subject of Mr. W. M. Ball's address. After this, a short business meeting was held. Eugene was selected as the place of the next meeting, November 8th, and the Photo Craft Studio will act as hosts.

Those present were: President Perry Evans and wife, Mr. and Mrs. J. Ganzlier of Portland, Mr. and Mrs. S. H. Wood of Corvallis; Mr. W. M. Ball of Corvallis; the Misses Minnie and Mary Trullinger and C. M. Coffey of McMinnville; Mr. and Mrs. J. Brockman, Mr. W. J. Parker, Mrs. N. E. Gunnell, Miss K. L. Gunnell, Mr. and Mrs. J. W. Brown, Mr. B. B. Robb, Mr. H. Trover, Mrs. Dodd and Mrs. L. Shrode, of Salem.

C. L. Huntington Passes Away

He stood for better things and sought to improve conditions for himself and for those in his line of business. His integrity was steadfast. He was a loyal friend. Those who knew him best loved him most and a host mourn his going. It can be said of C. L. Huntington that he sacrificed much for principle and often suffered with a bold front that a cause might prevail.

The value of a jewel box is in the gem it contains. You cannot get any more out of anything than you put into it. Association members take notice.

H. S. Sears Migrates

After a long and successful career in the altruistic community of Atascadero, our old friend, H. S. Sears, has moved to Tracy and is equipped with a completely new and modern outfit: An Eastman 7a Haldorson Flood and Spot Lights and all the appurtenances for portrait and commercial work as well as amateur finishing. Numberless friends will wish this genial photographer luck and their interest will follow him to the new stand.

The other day we were asked what camera a certain master used. We know that Rabe made his works of art with a two dollar box and a million dollar genius.

The next time you are at your books notice two things about red ink entries: They show up plainer and they are harder to erase.

LOUIS DWORSHAK IN ACTION

The enthused artist in the smock is Louis and the gentleman with the beatific smile is John Vanderpant. Note how soulfully these kindred spirits look into one another's eyes. Such is the spirit and community of Art.

San Francisco Commercial Photographers

At a meeting held November 11th, in the Secretarial rooms of the society the planned election of officers was postponed to the next meeting in honor and deference to the memory of the recently deceased member, C. L. Huntington. The condolences were ordered spread on the minutes and adjournment followed for the same highly commendable reason.

C. J. Hibbard died October 9, 1924, after an illness of six weeks and all who knew him mourn the loss of a good friend and upright business man. He specialized in Commercial work and leaves a valuable collection of views of Minneapolis and vicinity where he lived and worked to the last. These negatives are not only splendid examples of photography but have a historical value.

An Artist Takes an Artist and Critic

Behold! Dworshak of Duluth in the act of finding in Vanderpant of New Westminster another wonderfully strong and remarkable subject. Note the pleasant expression on the part of the subject and the deeply contemplative look on the photographer's face. Thus have we succeeded in preserving an historic moment for posterity.

It was at the Portland Concention and the writer just had time to unfurl his Graflex and catch the phychological moment on the wing. For the benefit of our inquiring readers the following data is vouched for as accurate: Time, late afternoon; place, Convention Hall, Portland; aperture, F 4.5; lens, Bausch and Lomb Tessar IC; film, Eastman Graflex; exposure 1/100 second. Taken by the Twin Arch Light with which Mr. Dworshak was working, and from a most disadvantageous point as the lighting was planned for viewing from the direction shown by the portrait camera in the picture.

Photographers' Association of Northern California

At what was generally acceded one of the most interesting and profitable meetings of months, this new organization met for the first time under its revised name and status on the evening of November 10th, for dinner and business, at the Hotel Stewart.

After a generous repast Mr. O. J. Smith of the Eastman Kodak Company gave a talk on "Getting Business For the Photographer" and with extemporaneous comments and frequent quotations from Studio Light showed how important right advertising and judicious publicity is to the profession. He was followed by Mr. E. J. McCullagh of Berkeley, with what was quite a remarkable address on "Particular Ways of Getting Business". The speaker was unreserved in putting before the meeting every means and device he has used and which gave results. He had brought his window display cards, mailing notices, holiday cards, newspaper copy, and even the boxes which in his studio has been made to supercede the wrapping paper or envelope. These were passed from hand to hand and constituted in themselves a liberal education. Mr. F. C. Mohler, of the Zellerbach Paper Company then treated on "Forms of Publicity and Materials Therefor". He had prepared many clippings from the house organ of the Collins Mount Company, "The Oak Leaf" and supplemented them with elucidations that met with approval.

It was decided to hold no meeting in December and the next gathering shall be on the second Monday in January when things of special interest are to transpire.

Deliver with scrupulous promptitude and you shall be entitled to as prompt payment.

In Memoriam

Only last month we published a picture of the group of photographers and their friends who with happy faces fronted the camera at a picnic given by the East Bay Photographic Club. The founder of this club and the moving spirit in all its activities was the late Huntington. Only so short a time since we recall him as host among hosts, exerting himself to make everybody feel the atmosphere of friendliness he himself always labored to bring about in the profession. And now he is dead. In the prime of life; hearty and hale one day; every hope and ambition quick and ahead; gone the next and another empty place to remind us of the mortality of man.

Would we could recall the kinship of man in this same mortality, keeping in mind the sameness of our hopes and aspirations, our elations and discouragements, affections and deeper love for home kith—recall the human and humane emotions which move us and make us one in the Eye of Providence—recall them all when in the stress and strife of daily life bitterness comes, that we may root it from our hearts and keep us that no later regrets may taint the bitterness of our grief.

Huntington was a hearty fellow, a real man, a true friend, and in his own way a philosopher who sought to conciliate such as would be other than friend to him. His name may not appear in these columns hereafter, but the evidence of his influence will find mention in the names of those who confess they owe much to him.

Really the proportion of failures is very small. They stick out so that we overestimate their number.

Photo Finishers of Northern California

At a preliminary meeting in the Studio of Gabriel Moulin, on the evening of November 17th, some twelve or fourteen of the leading Photo Finishers gathered to formulate tentative rules and adopt measures to form a permanent organization. The spirit shown was conclusive that this group will soon be functioning. May the good work go on.

Notes and Comment

Transcontinental Air Service

The Transcontinental Air Mail Service of the United States Post Office started on Tuesday, July 1st. A regular daily schedule of day and night flying is maintained both ways between New York and San Francisco, with stops at Bellefonte, Pa.; Cleveland, Bryan, Ohio; Chicago, Iowa City, Iowa; Omaha, North Platte, Neb.; Cheyenne, Wyo.; Rawlins, Wyo.; Rock Springs, Wyo.; Salt Lake City, Elko, Nev., and Reno, Nev.

The time between New York and San Francisco for through service will average 33 hours, as against 96 to 120 hours by train. According to an announcement by Second Assistant Postmaster General Paul Henderson, savings in time of from 6 to 72 hours will be possible, not only between the cities on the actual line of flight, but also by coordination with railroad schedules in the vast territory covered by the following points: Boston, Springfield, Mass.; Hartford, Philadelphia, Baltimore, Washington, Pittsburgh, Buffalo, Columbus, Dayton, Cincinnati, Indianapolis, Louisville, Detroit, Grand Rapids, Milwaukee, St. Louis, Kansas City, St. Joseph, Mo., Des Moines, Minneapolis, St. Paul, Denver, Ogden, Utah, San Diego, Los Angeles, Fresno, Cal., Portland Oregon, and Seattle.

There will be an extra postal charge for the extra speed furnished by the Transcontinental Air Mail Service, but no additional charge above the air rates for mail carried by rail from or to points off the air line. Three zones have been established, named: New York to Chicago, Chicago to Cheyenne, Wyo., and Cheyenne to San Francisco. The rates of postage will be 8 cents an ounce or fraction thereof for each zone or part of zone in which the mail is carried by plane.

Special air mail stamps will be issued, but any stamps good for postage may be used, and the envelope plainly marked "Via Air Mail." A special delivery stamp in addition to air mail postage will insure delivery on date of receipt at such cities as show arrival late in the day by air mail schedules. Mail will be accepted for registration upon payment of registration fee of 10 or 20 cents in addition to the air mail postage.

Any mailable matter will be carried by the Transcontinental Air Mail Service, including sealed parcels the dimensions and weight being the same as those which apply to regular parcel post packages. The air mail service will not be available at the present time for parcels which are insured or sent collect on delivery. Special air-mail boxes—painted red, white and blue—are to be installed at prominent points in the larger cities.

The following summer schedule will be maintained:

Leave	EASTWARD		Arrive	WESTWARD	
San Francisco, Cal.	6:00	A.M., P. T.	Reno, Nevada	8:00	A.M., P.T.
Reno, Nevada	8:15	A.M., P.T.	Elko, Nevada	10:45	A.M., P.T.
Elko, Nevada	11:00	A.M., P.T.	Salt Lake City, Utah	1:00	P.M., P.T.
Salt Lake City, Utah	2:15	P.M., M.T.	Rock Springs, Wyo.	4:00	P.M., M.T.
Rock Springs, Wyo.	4:15	P.M., M.T.	Cheyenne, Wyo.	7:00	P.M., M.T.
Cheyenne, Wyo.	7:15	P.M., M.T.	North Platte, Neb.	9:45	P.M., M.T.
North Platte, Neb.	11:05	P.M., C.T.	Omaha, Neb.	1:50	A.M., C.T.
Omaha, Neb.	2:05	A.M., C.T.	Iowa City, Iowa	4:50	A.M., C.T.
Iowa City, Iowa	5:10	A.M., C.T.	Chicago, Ill.	7:20	A.M., C.T.
Chicago, Ill.	7:35	A.M., C.T.	Bryan, Ohio	9:25	A.M., C.T.
Bryan, Ohio	9:45	A.M., C.T.	Cleveland, Ohio	12:20	P.M., E.T.
Cleveland, Ohio	12:35	P.M., E.T.	Bellefonte, Pa.	2:35	P.M., E.T.
Bellefonte, Pa.	2:55	P.M., E.T.	New York, N. Y.	5:05	P.M., E.T.

32 hours, 5 minutes.

WESTWARD

Leave				Arrive			
New York, N. Y.	10:00	A.M.,	E.T.	Bellefonte, Pa.	12:20	P.M.,	E.T.
Bellefonte, Pa.	12:40	P.M.,	E.T.	Cleveland, Ohio	2:55	P.M.,	E.T.
Cleveland, Ohio	3:10	P.M.,	E.T.	Bryan, Ohio	3:55	P.M.,	C.T.
Bryan, Ohio	4:15	P.M.,	C.T.	Chicago, Ill.	6:15	P.M.,	C.T.
Chicago, Ill.	6:30	P.M.,	C.T.	Iowa City, Iowa	9:00	P.M.,	C.T.
Iowa City, Iowa	9:20	P.M.,	C.T.	Omaha, Neb.	12:05	A.M.,	C.T.
Omaha, Neb.	12:20	A.M.,	C.T.	North Platte, Neb.	3:15	A.M.,	C.T.
North Platte, Neb.	2:35	A.M.,	M.T.	Cheyenne, Wyo.	5:10	A.M.,	M.T.
Cheyenne, Wyo.	5:35	A.M.,	M.T.	Rawlins, Wyo.	7:10	A.M.,	M.T.
Rawlins, Wyo.	7:30	A.M.,	M.T.	Rock Springs, Wyo.	9:00	A.M.,	M.T.
Rock Springs, Wyo.	9:15	A.M.,	M.T.	Salt Lake City, Utah	11:05	A.M.,	M.T.
Salt Lake City, Utah	10:20	A.M.,	P.T.	Elko, Nevada	12:35	P.M.,	P.T.
Elko, Nevada	12:50	P.M.,	P.T.	Reno, Nevada	3:30	P.M.,	P.T.
Reno, Nevada	3:45	P.M.,	P.T.	San Francisco, Cal.	5:45	P.M.,	P.T.

34 hours, 45 minutes.

A Bausch and Lomb Booklet

Within the boundaries of a three and half by six and half brochure containing seven or eight pages of text, this leading concern has issued a comprehensive list of its products, the process of their manufacture, and their uses. The booklet is not only informative but to the deductive mind will prove specifically educational. The tiny illustrations have a charm, apart from their illuminating value.

Two New Booklets

The days for flashlights are coming, coming, coming. The nights are always here for taking pictures by flashlight. That is a special branch of Photography to which books have been devoted, yet few amateurs have properly interested themselves in its opportunities.

Two pamphlets have come to hand from H. Smith and Sons Company: One dealing with their products Victor Flash Powder, and the appurtences and the other devoted to electric lighting systems. These neatly bound in flexible board booklets should be in the possession of every photographer and a postal to the firm named will probably bring them promptly.

The Harrold Exposure Scale

The other day we had the opportunity of seeing for the first time the new form of the Harrold Exposure Scale and it astounded us. We were familiar with the previous model and find it useful in our own practice but this advanced form seems to cover things we never thought of expecting. Not only are all the conditions usual in an appurtenance of this sort taken care of but factors for Ray Filters and latitudes of plates are dealt with. The new model is termed E. Z. and sells for $1.00 in the United States and for $1.15 abroad.

An Eastman Holiday Package

It is rather novel to see an Eastman composite package and yet nothing seems more logical and timely than the Christmas outfit now displayed by dealers,—a neat box containing the new model number two Brownie Camera, a portrait attachment lens, a tube of Kodak Photo Paste, a fifty leaf gold embossed album and a most useful instruction book. Added to all of which in the nature of extra good measure is a coupon for a year's subscription to Kodakery. Seeing the outfit our minds traveled back to the day when we wished and wished someone would gladden our boyish soul with a camera, and having gotten one by grace of much and intense wishing, had then to stint and save in order that we might buy the requisites to using what had been given. It almost excaped our minds—in that wonderful box even two rolls of film have been included. Nothing is wanting. Your boy can begin taking pictures Christmas morning.

Artists Who Love Photography

We had the pleasure some days ago of receiving a call from two ladies whose prominence in the circle of Painters made their interest in photography something in the nature of a compliment to the camera enthusiast. Mrs. J. Vennerstrom Cannon and Blanche Collet Wagner are at this writing giving an exhibition of their painting at the Gump Galleries in San Francisco. The art of these ladies is a composite of standard classic conception of lines and perspective and modern color theories. Their drawing is such as is within the conception of conservative picture lovers and the colors vibrate so naturally to the moods that the Nature we all know and

love gives to us all that one is led to wonder whether modernity may not after all be compatible with realism and the established order that led Praxitelles, and Rodin, Raphael and the ultra schoolists to their great achievements. Though it may strike some of the rabid painters who choose to hold photography in contempt, we are brave enough to venture a guess that these two artists who confess and proudly, that they love photography, have gained something in the way of seeing Nature's truths, things that are evanescent, through the detailed reportorial help of the camera, possibly transmuted by some able pictorialist to real art.

Monohydrated Carbonates

The Mallincrodt firm is exploiting their form of Photographic Carbonates and have the following paragraphs printed in their August price list. We consider the matter pertinent and educational and reprint the same as face value:

Sometimes we are asked, "Is your Photo Carbonate of the same strength as the so-called 'anhydrous' brands?" We answer "No" because technically that is the correct answer, but from a practical standpoint we could say "Yes" and be right nine times out of ten. This is the reason: Theoretically, an anhydrous Sodium Carbonate is 100% Na_2CO_3. In actual practice it is obtainable from 98% to 85%. These differences being noted in the products of the same manufacturers. The reason for this large variation in strength is that this "anhydrous" form absorbs water from the air upon standing, finally stabilizing at approximately 85% Na_2CO_3, which is the monohydrated salt.

The Photographer using such an article is therefore faced with the problem of employing in a very delicate chemical reaction a product of uncertain strength. It may be anywhere between 98% and 85% depending upon conditions to which the goods have been exposed and the length of time the package has been in stock. Furthermore, the top and bottom of the same package are often quite different and even after adjusting the solution properly for one operation, the next time the solution is made up the strength of the "anhydrous" carbonate has again changed.

This same difficulty has been experienced by users of the Sodium Carbonate Crystals. In this case the crystals dry out or lose water from a theoretical content of 37% Na_2CO_3 eventually reaching approximately 85%, the monohydrated form.

For the economical and efficient operation of a finishing department, modern studio practice requires that negatives be made of uniform density and printing qualities so that prints are obtained of uniform color and contrast when using a standard time for their development. You can only be sure of getting such conditions when the developing bath, made according to your favorite formula, is absolutely the same each time.

Photo Carbonate is therefore **made monohydrated at the time of manufacture.** It is guaranteed to be uniformly of 85% Na_2CO_3 and to retain that strength indefinitely. That is the stable form. The point at which the **water content** may be said to be in balance. On the other hand SODIUM SULPHITE is permanent in the anhydrous form and we supply it in that way.

The Spencer and Stolte Studio

Those enterprising young artists who made 2414 Santa Clara Avenue, Alameda, a Mecca for lovers of fine portraiture have removed to a more central location and more modern quarters. The shrine is now at 1328 Park Street on the line of most traffic, in a new building. The Studio is on the ground floor, all workrooms are to be out of the way on a mezzanine floor to be completed shortly. While daylight is available, these up-to-the-minute portraitists propose to utilize the newest electric lighting devices and have, in fact, modernized every detail of furnishing and equipment. Alameda is moving forward and the impulse of its onward way comes from the aggressiveness of courageous souls like these.

New Contessar-Nettel Price List

Those who are familiar with this remarkable line will be agreeably astonished to know that there has been a reduction in the price list all along the line. We note that G. Gennert, Incorporated are prepared to send a copy of the price list to any reader of Camera Craft.

Association News

Published under the authority of the Board of the P. A. of A. under arrangement with the publishers of Abel's Photographic Weekly, Bulletin of Photography and CAMERA CRAFT.

S. R. CAMPBELL, Jr., General Secretary, 722 Bond Bldg., Washington, D.C.

During the course of the Milwaukee Convention the suggestion was made, that it would be a fine thing, if the Daguerre Institute, the home of the Winono School, could be brought up to date in the way of furnishings and acknowledged needful changes to the building.

So far, for the three years of its prosperous existence, it has grown wonderfully under conditions that are hardly befitting an enterprise conducted by a National Association and it is all due to the fact that while the surroundings may be more or less antique, the equipment of photographic apparatus furnished by the Manufacturers and Dealers is absolutely up to date and the course of instruction has been thorough. A general feeling of good fellowship has pervaded the classes, the resultant enthusiasm causing them to overlook the shortcomings and take full advantage of the facilities as found.

With the success of the school thus assured,—why continue with make-shift accommodations when certain improvements are so badly needed? Five thousand dollars will do the trick and this is the amount which the ladies of the Women's Auxiliary, P. A. of A., through their Chairman, Mrs. Howard D. Beach, agreed to raise at the Convention. The ladies are anxious to be of some real service to the National Association, they want to boost the profession by having a creditable home for the School,—one worthy of the P. A. of A. and have started a campaign to raise the sum. While at Milwaukee, when it was possible to personally solicit subscriptions and go into details of the real need and noble purpose of the fund, they were able to raise some seven or eight hundred dollars in a jiffy. It was a fine start and while the correspondence method since used has had more or less response, there are still many appeals left unanswered.

We want to see those ladies put that fund across and the only way to do it, is for the individuals to chip in their little checks. Just mail them to Mrs. Howard D. Beach, Chairman Women's Auxiliary, P. A. of A., No. 467 Virginia Ave., Buffalo, N.Y., and she will gratefully acknowledge them.

The aforementioned fund must not be confused with the Memorial Fund which is being subscribed to by the friends of the late Julius C. Strauss. This latter is purely a testimonial of admiration to a departed friend, coincidently being assigned to the same institution. Since our last announcement, we have acknowledged donations from Howard D. Beach, F. Dundas Todd, Benjamin J. Falk, M. J. Steffens, and D. P. Thomson.

Before we drop the School subject, we wish to remind you that this is the last month in which to get in your suggestion for a new name. "Winona School" is good, as a nick-name, but it unconsciously robs the P. A. of A. which fostered it and is back of it, of any connection with the institution. A prize of $25.00 awaits the lucky person who can suggest the best name by December 31st, the winning features being an avoidance of the word "School" and in some way, connecting the name of the Photographers' Association of America with it, either by name or initial. Don't make them too long; a snappy name is far more effective and if Webster or the International can't furnish it, make up a coined word or name of your own. Mail suggestions to the General Secretary of the P. A. of A. before December 31st for consideration at the January Board Meeting.

The Board Meeting, by the way, has been set for Cleveland, Ohio, January 12th and 13th, with the Hotel Winton as the place of assembly.

Club News and Notes

Club Secretaries and Others will oblige by sending us reports for this Department

Southern California Camera Club

This Los Angeles group of earnest amateurs is proving its right to a place in the sun by announcing its third exhibit of pictorial photography for January first to January thirtieth, nineteen twenty-five, with a closing date for receiving prints on December seventeenth of this year.

We read with interest the ninth clause of the "Conditions of Entry and Exhibit" that "Only artists of the Rocky Mountain and Western district will be eligible to this exhibit". Which means there is a strictly western exhibit coming, and that Los Angeles is the city that has pioneered it.

Brooklyn Institute

During the month of October, the class of Mrs. Lauffer in Pictorial Photography, has had two meetings in the studio of the department and one in the field. Mr. Zerbe's class for beginners and the one for more advanced workers, have each had a session.

Commencing with November, the usual monthly exhibition of prints by members will be held. On November 10th and for the remainder of the month, fifty prints by Myers R. Jones will be on the walls of the studio. Of these thirty-nine will be of hand coated platinum, the others in pallitype and bromoil. In December, Mr. Wm. Elbert Mcnaughtan, the president of the department, will have an exhibition of his work.

The Pittsburgh Salon

With most commendable forethought the Pittsburgh group of pictorialists have mailed their entry blanks four months ahead of the exhibition, so permitting intending contributers to prepare specially what they want to submit. The last minute notices too often compel many a fine worker to grab what is left on hand or to hurry in choice and execution. Reading the names of Contributing Members gives one the feeling of scanning the Photographic Blue Book. And this is natural when it is known that this Salon, of all American Salons, is the ultimate goal of the pictorialists's ambition. It should be that if it isn't. When the history of American Pictorialism shall be written it shall be found to move about two groups, the Buffalo and the Pittsburgh. For some reason we hear very little nowadays of the former, but the latter shines refulgent over all the world.

The show opens on March Second and runs to the end of that month and the last day on which prints will be received is February Second. Let all take notice and prepare as the event deserves. This year promises to be the banner year and Europe is coming in on our exhibitions in a way that should cause our workers to strain for achievement.

If inspiration waits on worthy incentive the Pittsburgh Salon should suffice to furnish enough of it to create masterpieces.

Forthcoming Exhibitions, 1924-1925

January 1st to January 30th, 1925, inclusive—Third Exhibit of Pictorial Photography of the Southern California Camera Club of Los Angeles. Last day of entry December 17th, 1924. Address: Avenue 46 and Marmion Way, Los Angeles, California. Limited to residents of Rocky Mountain districts and west thereof.

March 1st to 31st, 1925—Twelfth Pittsburgh Salon, P. F. Squier, secretary, 237 Ave. B, Westinghouse Plan, East Pittsburgh, Penna. Entries close February 2nd, 1925.

March 3rd to 31st, 1925—Portland Society of Art, Portland, Maine. Oliver P. T. Wish, Secretary-treasurer, L. D. M. Sweat Memorial Art Museum, Portland, Maine. Closing date for entries February 18th, 1925.

The Manchester-Liverpool Associations' Salon has been postponed and both date and location will be announced in a forthcoming issue.

A Photographic Digest

Edited by H. D'Arcy Power, M. D.

Safranine-Stained Negatives

In "Das Atelier des Photographen" Dr. Arvid Odencrants has a practical note on desensitizing with phenosafranine, namely, the negligible influence of residual stain on the printing value of a negative. It is clear that, were the presence of such a stain to have any appreciable influence in this direction, the practical value of this method of desensitizing would be limited by two important considerations; firstly, the necessity of avoiding any uneven staining, and secondly, the inconvenience of completely decolorising negatives. It is a matter of general experience that even a very noticeable phenosafranine stain in part of a negative may not interfere in any way with its printing, but it is none the less noteworthy to find it confirmed from sensitometric examination, that even a deep red stain of this nature is without influence, whether it be in the clear-glass shadows or in the densely-covered portions of the negative. This fact, which may appear at first sight somewhat curious, is explained when the stain is examined spectroscopically. It then appears that the stain transmits blue and violet rays almost completely, at least in those portions of the spectrum which are effective in the printing of development papers. In other words, the stain is not a true red, but rather a "minus green." For this reason it may be concluded that the various methods of removing phenosafranine stain, to which considerable attention and ingenuity have been directed, represent useless labor.

British Journal of Photography.

Photographs By Wire

According to the New York correspondent of "The Times," fifteen photographs were sent over an ordinary telephone wire 579 miles, from Cleveland to New York, on May 19, in a demonstration lasting two hours of a new invention by the American Telephone and Telegraph Company. The pictures when developed in New York proved such faithful reproductions of the originals that, without retouching they could be printed in newspapers exactly as other pictures are. Retaining the essential characteristics of the original photographs, they closely resemble pictures taken with "soft-focus" lenses. The time of transmission of each picture was 4 minutes 36 seconds. A positive film was clamped on a cylinder in Cleveland and through the film a ray of light fell, with an intensity which varied with the thickness of the emulsion (density of image.—Eds., B. J.), upon a potassium pencil constituting a photo-electric cell in the center of the cylinder. The cylinder was shifted a sixty-fifth of an inch to the right with each revolution, and the receiving cylinder in New York was synchronized with it. As the light fell upon the photo-electric cell an electric current was produced of varying strength which passed over the telephone wire to New York, the current being reinforced at Pittsburgh and Philadelphia. The variations of the current were mechanically translated by the receiving instrument, and the variations of light so produced acted upon a film, which was then developed like any other photographic film.

Four different electrical companies have been working upon the same problem for more than a year, but with different methods. Within a short time attempts will be made to send photographs by wireless across the Atlantic. At present, however, even wire transmission requires practically perfect conditions; commercially successful transmission by wireless is considered unlikely in the near future.

British Journal of Photography.

NOTE.—Doctor Power has been travelling throughout Italy and, though it be rather away from the character of this department, a narrative of his experiences in that country will appear under this heading in the next issue. S.B.

The Amateur and His Troubles

Conducted by Sigismund Blumann

Shutter Speeds and Diaphragm Openings

Most amateurs are prone to use the highest shutter speed and largest diaphragm opening consistant with the light. This is poor practice as many a good picture is spoiled by not stopping down and giving more time. The high shutter speeds are only used for stopping motion and not for holding back the light. Consequently with the use of the higher speeds a larger diaphragm opening is necessary to admit more light to the plate or film. When there is no movement, the smaller the stop and longer the time, the better the picture.

This does not hold in portraiture, however, nor in any case where the background is to be diffused, as stopping down lengthens the hyperfocal distance of the lens and places both near and far objects in focus. However, practically all land and sea scapes, photos of events, interesting places and such still subjects should not be taken at the 1/25. sec.—f.16 advocated by so many camera salesmen.

STOP DOWN! SLOW UP!

Remember this slogan, "The slowest shutter speed the movement will permit plus the smallest stop the light will stand" and you will have a Coueism of Amateur Photography. —R. L. Mc Colm.

On Stops

In looking over the pictures in the photo magazines, I notice that many camerists use their anastigmats at the small stops: f:16, f:32 and even f:64 when taking landscapes and groups. If they were asked why they used the small stops the answer would probably be that it was to get better pictures than they could with the larger ones. Theoretically they certainly would get sharper pictures with the small stops, sharper with f:32 than with f:22, but I doubt if in actual work that difference could be seen in the print with the normal eye. In taking landscapes with the camera set level at tripod height the nearest bit of foreground showing in the picture would be somewhere about fifteen feet from the camera, and I think that not many are taken where the principal object focused on is less than twenty-five feet distant and more often fifty feet or more. If with an anastigmat of 4-inch focus we focus on an object at twenty-five feet distance we get almost exactly as sharp a picture with f:8 as with f:32, (that is one of the advantages that we pay good money for) but if there are included in the pictures objects at a long distance then these would be cut sharper with the small stop, but whether that would improve the picture is another question.

In figuring scales of depth of focus (depth of field) it is figured as with a perfect lens, perfect atmosphere, perfect focusing and the receiving film as a perfectly flat surface.

In ordinary work we have none of these things perfect and especially the receiving sensitive emulsion which has a depth and a grain so that there is a definite limit to the fineness of detail that it can register. If the camera is not in perfect order, the film in the same plane as the ground glass, or when using a scale if the scale is not accurate and accurately placed, then it is of little use to figure on fine points at all, and about the only way to get good pictures is to use the smallest possible stops. And so lose the speed of the anastigmat.

I am not a fuzzyist, for I like sharp clear cut pictures and am trying to find out how sharp and clear I can get them by using the larger stops. A great many landscapes owe their beauty to the clearness with which we can see the distance objects.

Instead of the objects in the foreground being the chief point of interest it is the objects in the distance, such as a row of trees on the distant hills "Sharp cut against the sky."

I saw several pictures the other day that were taken with f:4.5 and f:6.3 and they did not have any appearance of fuzzyness, but the whole effect was bright clear pictures. It seems that the maker of these did not think that the small stops were necessary.

I have been experimenting lately by taking several negatives of a scene, using stops f:8, 16, 32 and 64 and comparing them. Between the negatives made with the largest and the smallest stop I find practically no difference in the sharpness of the objects focused on, but distant objects showed a difference that could be easily seen in the negative with a fairly good eyesight, but the difference between those, of say f:32 and those f:16, was too slight to be seen, and if seen on the negative might not show in the finished picture.

Even if the objects were not quite so sharp in the distance I think that Editor Felloes and a great many others would say that the picture was better on account of it.

I have come to the conclusion that with my lens f:8 that I can use the full opening for nearly all of my outdoor work and very seldom stop down to f:16 and never use the smaller stops.

Would it not be well for those camerists who are puzzled to decide whether to use f:22 or f:32 to make a series of pictures with the smaller stops and then see if they can detect the difference in the prints.

To test my camera to see if the groundglass registered in the same plane as the film I set the pointer on the infinity mark and then took a picture of object at distance, then racking the lens out slightly beyond the infinity mark took a second one, and then racking the lens out just a little short of the infinity mark took a third one and then compared the three for sharpness.

I think that Camera Craft would welcome the views of others who have experimented along these lines.

WILLIAM H. BLACAR.

NOTE—When doctors disagree what shall the patient do? And yet there is truth in what both Mr. Blacar and Mr. McColm say. It remains for the reader to choose and apply according to the circumstance, the intention, or taste.

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Photographic Facts and Formulas

Any book with E. J. Wall's name on the cover is certain to prove valuable. Mr. Wall is not apt to rush into print with a half-conceived, carelessly executed scheme. Moreover, he has a keen sense of what is most wanted and brings to the task of supplying the want a rare faculty of knowing how. "Photographic Facts and Formulas" is not an original book—that is, the text is not inspired—but rather a compilation of what is best under each heading. The scope is quite exhaustive, ranging from Studio and Work-room to Photo Mechanical Processes. Those of our readers who are familiar with the same author's Dictionary of Photography will welcome this later, more up-to-date book.

American Association of Advertising Agencies Directory

Another listing is that of the above association and it is unique in that the names given are not of Advertising Agencies, but of their clients. Not a hint of exploitation between the covers, but an intention to serve its members, is shown by the projectors of this neat clothbound book. It is published to be issued only to those belonging to the A. A. of A.

Los Angeles Manufacturers' Directory

We received a pamphlet of 202 pages which under the above title lists every factory and industry in the boundaries of Los Angeles. It is a respectworthy volume. The idea is worth imitation. To the investing public matters of civic beauty and cultural achievement are but added inducements; the kernel of the nut, to them, is the manufacturing status of the community in which they are asked to sink their wealth.

A New Photo Miniature

The May-August issue of this indispensible series is entitled "Photographic Failures." The name is intrigueing and should appeal to the millions. We may not all make photographic masterpieces but we can, and do, achieve outstanding failures. The best of us should be glad to learn not only how to avoid or remedy these failures, but to know when and how we fail. The booklet is comprehensive and in briefest of forms tells much that is little known and often forgotten.

Expression in Pigmenting.

The fourth of that invaluable series by F. C. Tilney on the control processes comes to our hands to get such welcome as only unusual merit is likely to inspire. We have learned to know that anything from the hand of Tilney is certain to either carry us further along the road we have progressed or to so crystalize our conceptions as to make them available for practical use. The writer is a born teacher and that he is neither pedantic nor academic is so much more to the good. IfIf these lines ever reach the eyes of Mr. F. C. Tilney, may they convey to him our sincerest thanks for giving us a treatise free from stock phrases and pseudo-technical terms which by reiteration and loose usage have come to mean anything or nothing. We commend the frank, unstilted English in which he makes his points and are complimented that he writes as if to equals and not as if he were indulgently stooping to the obtuse and ignorant.

The text, it will be gathered from the foregoing, impresses us as valuable, but, frankly, the illustrations are inadequate and mean little inasmuch as anything they might show is as possible in ordinary Bromide enlarging as by the Pigment processes. However, the series is termed "Tracts for Pictorialists" and one hardly expects illustrations in a tract.

The price is One Shilling in England, a ridiculously low figure for the value offered. We should willingly pay as much for single phrases to be culled here and there throughout the little pamphlet. We advise every pictorialist, beginner or advanced, to invest in the entire series, four of which have been issued to date.

Photography and Its Mysteries

If you will conceive of a book about two inches thick, bound most substantially in green cloth, rigid board, and of 256 pages, packed solid with those things in photography which no one book ever had gathered at one time: If you will consider that here is some history, some science, some astronomy, some of all the things to which photography has ever been adapted: If furthermore you can grasp the fact that these subjects have been treated accurately yet entertainingly, you will get an idea of what Charles R. Gibson F. R. S. E. has accomplished in one volume.

If any fault may be found with the edition it is that the paper is unnecessarily heavy. Text as interesting and useful as this needs no bulking to impress the buyer. Book papers have been perfected so that much may be printed in thin volumes. But this is hypercritical. We should be glad to buy this book though it were printed on boards. The illustrations, mostly line drawings, are elucidative and have, somehow, an oldtime charm.

J. B. Lippincott Company, Philadelphia.